INDEX TO VOL. 202

NAMES

A

A.C.V. Group, "Bridgemaster" Double-Decker Bus, 392
A.E.C. Ltd., 10 cubic yard Dumper, 737
A.E.I.-John Thompson Nuclear Energy Co., Ltd., 300MW Nuclear Power Stations for Great Britain, 891
Abell, T. B., Obituary, 147
Aberdeen Electrical Eng. Co., Ltd., Garry and Moriston Hydro-Electric Schemes, 577
Accles and Pollock Ltd., Calder Hall Power Station, 537 ; Tubes and Tubular Products, (602)
Adams Hydraulics, Ltd., Troopship "Nevasa", 162 ; Cunard Liner "Carinthia", 199
Adam, George, and Sons, Ltd., Electrical Equipment for Malting Plant in Nairobi, 204
African Explosives and Chemical Industries (Rhodesia), Ltd., Superphosphate Plant for Salisbury, 63
Aickman, Robert, London's Water Supply, (Letter, 268)
Air Control Installations Ltd., Air Filtration Material, (618)
Air Registration Board, Annual Report, 112
Aiton and Co., Ltd., Calder Hall Power Station, 537
Akers, R. L., Irrigation Scheme in Malaya, 58
Albion Motors Ltd., "Claymore" Underfloor-engined Lorries, 430
Alexandre, Ltd., Some Recent Industrial Developments, 128
Allen, S., Rocket Motors, 505
Allen, W. H., Sons and Co., Ltd., Troopship "Nevasa", 162 ; Carbonisation and Chemical Plant at Wingerworth, 623, 655 ; Twin-Screw Liner "Camito" 860
Allgemeine Electricitats-Gesellschaft, Tuncbilek Power Station, 65
Alsacienne de Constructions Mechaniques, Medium Horsepower Diesel Engine, 208
Aluminium Construction, Ltd., Some Recent Industrial Structures, 128
Aluminium Union Ltd., Aluminium for Transmission Lines, (678)
American Machine and Foundry Co., First German Reactor, 65
American Metal Products Co., Fabrication of Frictional Parts from "Teflon" Fibre, 32
Ames Crosta Mills and Co., Ltd., Carrington Power Station, 124
Anderson, Sir Donald F., Presidential Address, 499 ; Nuclear Power for Ships, 759
Andre Rubber Co., Ltd., Troopship "Nevasa", 162
Anglamol, Ltd., Oil Test Laboratory, 56
Anglo-American Asphalt Co., Ltd., Electrification of a Welsh Grit-Stone Quarry, 95
Angus, George, and Co., Ltd., Oil Seal Factory, (602) ; Opening, 672
Annan, J. G., Operation of a Modern Petroleum Refinery, (754)
Appalachian Electric Power Co., Industrial Nuclear Facilities Works in Virginia, 139, 176
Appleby-Frodingham Steel Co., Large Blast-Furnace-Hearth, (286)
Archdale, James, and Co., Ltd., Radial Drilling Machine ; Vertical Milling Machine ; Transfer Machine, 47
Arens Controls Ltd., Newsprint Mill at Kemsley, 851, 888
Armfield Hydraulic Engineering Co., Ltd., Garry and Moriston Hydro-Electric Schemes, 577 ; 647
Arrol, Sir William, and Co., Ltd., Carrington Power Station, 124 ; North of Scotland Hydro-Electric Schemes, Garry and Moriston, 503 ; 577
Artic Fuse and Electrical Manufacturing Co., Ltd., Garry and Moriston Schemes, 647
Ascough, H. H., Wide-Strip Rolling and Sheet Finishing Equipment, 765
Asea Electric Ltd., Garry and Moriston Hydro-Electric Schemes, 577
Atkins, W. S., and Partners, Cantilevered Stand Roof, 27
Atkinson Vehicles Ltd., Twin-steer Six-wheeled Lorry, 430
Atkinson's Agricultural Appliances, Ltd., Silver Medal Award, 25
Atlas Copco, Use of Compressed Air Against Ice, 900 ; Petrol-Engine-Driven Drill, 737
Atomic Power Development Associates, Industrial Nuclear Facilities Works in Virginia, 139, 176
Augustin-Norman, M. A., Free-Piston Gas Generators, (868)
Austin Motor Co., Ltd., 7-ton Truck, 430 ; "Princess IV" Car, 552
Automatic Telephone and Electrical Co., Ltd., Carrington Power Station, 124
Automotive Products Co., Ltd., Lockheed Transmission Hand Brake, 470
Avery, W. and T., Ltd., Balancing Machine for Cardan Shafts, 102 ; 500-Ton Universal Vertical Testing Machine, 161
Aviation Developments Ltd., Blind Fastener, 365
Ayling, P. W., Some Observations on Local Vibration, (792)

B

B.E.N. Patents Ltd., Air Compressors, (932)
B.I.P. Chemicals Ltd., Glass-Reinforced Plastic Lifeboat, 376
B.S.A. Tools Ltd., Chuck for Screwed Shank Tools, 709
Babcock and Wilcox, Ltd., Carrington Power Station, 124 ; Industrial Nuclear Facilities Works in Virginia, 139, 176 ; Kariba Hydro-Electric Scheme on the Zambesi River, 155 ; Calder Hall Power Station, 464, 500, 537 ; Carbonisation and Chemical Plant at Wingerworth, 623, 655 ; Developments in Nuclear Power Engineering at Renfrew, 697 ; Nuclear Propulsion for Merchant Vessel, 791
Bacon, F. T., High-Pressure Hydrogen-Oxygen Fuel Cell, 93
Baker, J. F., Symposium on the Plastic Theory of Structures, 484
Bailey Meters and Controls, Ltd., Smoke Density Meter, (318)
Bailey, N. G., and Co., Ltd., Calder Hall Power Station, 537
Baird Associates Inc., Semi-Conductor Resistivity Test Set, 317
Baldwin Instrument Co., Ltd., Nucleonic Level Indicator, 630
Baldwin, Lima-Hamilton Corporation, Instrument for the Calibration of Torque Wrenches, 677 ; Electrical Load Measuring System for Kingsbury Thrust Bearings, 715
Banks, F. R., Aircraft Procurement, 535, 619
Barclay, Curle and Co., Ltd., Troopship "Nevasa", 162
Barthalon, M., Free-Piston Gas Generators, (868)
Bayerische Wasserkraft-werke A. G., River Lech Hydro-Electric Scheme, 173
Bean, Alexander T., Obituary, 607
Beazley, L., Cut-offs in Modern Hydraulic Diversion Works on Alluvial Rivers, (Letter, 236)
Beer, Stafford, Test for Detecting Real Changes in Frequency, 798
Benson, R. S., One-Dimensional Transient Flow in a Pipe with Two Gases, 687
Bentall, E. H., and Co., Ltd., Disc Harrows, 816
Berk, F. W., and Co., Ltd., Plastic Coating of Metallic Articles, 823
Berkeley Coachwork Ltd., Two-seater Sports Car, 552
Berkeley Electrical Engineering Co., Ltd., Electrical Equipment for Malting Plant in Nairobi, 204
Bethlehem Steel Co., Erection of Great Egg Bay Bridge Superstructure, 317
Beves and Co., Ltd., Timber Storage Shed, 407
Bierrum and Partners, Ltd., Carrington Power Station, 124
Biggleswade Water Board, Some Recent Industrial Structures, 128
Binnie, Deacon and Gourley, Some Recent Industrial Structures, 128 ; Inauguration of the Daer Water Supply in Lanarkshire, 592 ; Foxcote Reservoir, 695
Binnie, G. M., Conserving Water Resources, 571
Birfield Industries, Ltd., Strainer for Pipelines, 412
Birlec, Ltd., High-Frequency Vertical Hardening Equipment, 45 ; Apprentice Training Centre, (458)
Birmingham and Midland Motor Omnibus Co., Ltd., Some Recent Industrial Developments, 128
Birmingham Railway Carriage and Wagon Co., Ltd., Diesel-Electric Locomotives for Eire, 485
Bishop, R. E. D., Myklestad's Method for Non-Uniform Vibrating Beams, 838, 874
Blackburn and General Aircraft, Ltd., Air Trooping, 333
Blake, L. R., A.C. and D.C. Conduction Pumps for Liquid Metals, 541, 572
Blakeborough, J., and Sons, Ltd., Carrington Power Station, 124 ; Calder Hall Power Station, 537
Blaw Knox Ltd., Pneumatic Conveying Equipment, (678) ; "Adjusta-Wate Motomixer" for Concrete, 737
Blok, H., Theory of Hydrodynamic Lubrication in Parallel Sliding, (Letter, 304)
Boadle, C. D., Some Safety Considerations of Nuclear Power Reactors, (754)
Boiler Availability Committee, Research on Boiler Availability, (118)
Bomford Brothers, Ltd., Front-Mounted Mowing Machine, 342
Bomford, D. R., Power for Ploughing, 556
Bonar, Long and Co., Ltd., Garry and Moriston Schemes, 647
Bonser, Frank, and Co., Ltd., Tractor-Mounted "Agrotiller", 25 ; One-Ton Truck, 817
Booth, James, and Co., Ltd., Automatic Triple-Draw, High-Speed Drawbench, 375
Borg and Beck Co., "Manumatic Control", 552
Borg-Warner, Transmission, 552
Bosch, Robert, G.m.b.H., Improved Car Headlamp, 489 ; Electric High-Frequency Power Drill Hammer, 599 ; Lightweight Pendulum Starter Dynamo, 787
Boughton, T. T., and Sons, Ltd., Silver Medal Award, 25 ; Industrial Equipment Display, 341
Boving and Co., Ltd., Kariba Hydro-Electric Scheme on the Zambesi River, 155 ; Garry and Moriston Hydro-Electric Schemes, 577, 647
Bovis, Ltd., Some Recent Industrial Developments, 128
Bowater Paper Corporation Ltd., Newsprint Mill at Kemsley, 851, 888
Boydell, E., and Co., Ltd., Hydraulic Loader, 737
Brackett, F. W., and Co., Ltd., Carrington Power Station, 124
Braithwaite and Co., Ltd., Newsprint Mill at Kemsley, 851, 888
Bramall, B., Resonance Stress Testing, 224, 582
Breda Elettromeccanica e Locomotive, S.p.A., Lightweight Electric Passenger Train, 280
Briggs Motor Bodies Ltd., Mechanised Motor Body Building, 817
Briggs, William, Ltd., Newsprint Mill at Kemsley, 851, 888
Brigham and Cowan, Ltd., Opening of Dry Dock on the River Tyne, 413
Bristol Aero-Engines, Ltd., Ramjet Engine, 203
Bristol Aircraft, Ltd., Aircraft Design Mathematics, 39 ; Helicopter Progress, (178)
Bristol Repetition Ltd., Basic Automatic Index-Machine, 450
British Acheson Electrodes Ltd., Calder Hall Power Station, 537
British Aluminium Co., Ltd., Refrigerated Vehicles, (442)
British Broadcasting Corporation, New Mobile Studio, (34) ; Reith Lectures, (602) ; Research Scholarships, (638)
British Brown Boveri, Ltd., Jubilee, 3
British Central Electrical Co., Ltd., Miniature Circuit Breaker, (458)
British Columbia Electric Co., Ltd., 138kV Submarine Cable for Vancouver Island, 589
British and Continental Traders, Ltd., Heavy-Duty Roughing Roll Lathe, 30
British Council, Visit of British Engineers to Russian Hydro-Electric Schemes, 535
British Engineers Small Tools and Equipment Co., Ltd., Dinner, 3
British European Airways, Helicopter Progress, (178)
British India Steam Navigation Co., Ltd., Troopship "Nevasa", 162
British Insulated Callender's Cables, Ltd., Carrington Power Station, 124 ; Calder Hall Power Station, 537 ; 138kV Submarine Cable for Vancouver Island, 589 ; Dielectric Irradiation Laboratory, 594
British Iron and Steel Federation, British Steel Home Demand, 170 ; World Steel Production, 170
British Motor Corporation, Settlement of Dispute, 242
British Overseas Airways Corporation, Jet Airliner, (709)
British Oxygen Co., Ltd., Automatic "Argonaut" Welding Head, 59 ; Tonnage Oxygen Plant Opened at Margam, 183 ; Automatic "Argonarc" Welding Equipment, 267
British Oxygen Engineering Ltd., Training School for Apprentices, (792)
British Oxygen Research and Development Ltd., Industrial Research Laboratory, 517
British Petroleum Co., Ltd., Egmanton Oilfield, (163) ; Aviation Fuel Filters, (374) ; Low-temperature Corrosion, 483 ; Low Temperature Corrosion Control, (588)
British Productivity Council, Productivity, 61 ; Work Study in Ordnance Factories, 488
British Road Federation, Traffic Survey of the Cromwell Road Extension Scheme, 39 ; Scottish Roads, (409)
British Road Services Board, Plan, 206
British Steel Piling Co., Ltd., Pile Extractor, 737
British Sugar Corporation, Mechanical Harvesting of Sugar Beet, 596
British Thomson-Houston Co., Ltd., Finlarig Power Station, 25 ; Power Drive, 25 ; Fleetwood Power Station, 408 ; Silicon Junction Rectifiers, 484 ; Calder Hall Power Station, 537 ; Electrical Drive for Five-Stand Tandem Cold Mill at Velindre, 661 ; Newsprint Mill at Kemsley, 851, 888
British Timken Ltd., Factory for Heavy Tapered Roller Bearings, 819
British Transport Commission, Training Establishments, (106) ; Reconstruction of Cromwell Weir on the River Trent, (494) ; Railway Productivity, 522 ; British Railways and the Oil Shortage, 785 ; Careers for Engineers in Railway Service, (830) ; Transport Treasures Exhibition, (830) ; Development Engineers for British Railways, 835 ; Universities, 898
British United Traction, Ltd., Railcars in Australia, (34) ; Inter-City Diesel Railcars, 164
Broadbent, Henry, Ltd., Ultrasonic Cleansing Plant, 49
Broadwell Engineering Co., Ltd., Newsprint Mill at Kemsley, 851, 888
Brockhouse Engineering Co., Ltd., Oil Well Drilling Package Units, 706
Broken Hill Pvt., Co., Ltd., Modern Pyrite Plant Opened in South Australia, 205
Bronx Engineering Co., Ltd., Heavy-Duty Plate Shearing Machine, 27 ; Roller Straightening Machine, 708
Brooke Tool Manufacturing Co., Ltd., Unit Head for use on Transfer and Special Purpose Machines, 7
Brookhirst Switchgear Ltd., Fibre Blending and Carpet Plant, 705
Broughton, H. H., Gear Standards, 652
Brown Brothers and Co., Ltd., Cunard Liner "Carinthia", 199
Brown, David, Companies, Constant Drive on Tractor, 23
Brown, David, Group, Aston Martin "Superleggera" Sports Car, 552
Brown, David, Industries Ltd., Overshot Loader, 737 ; "2D" Diesel Engine, 737 ; "900" Diesel-engined Tractor, 782
Brown, David, Machine Tool Division, Automatic Cycle Gear Hobbing and Shaving Machine, 926
Brown, Gordon, Commissioning of Calder Hall No. 1 Reactor, 722
Brown, J. Guthrie, Presidential Address, Historical Review of British Hydro-Electricity, 499
Brown, John, and Co. (Clydebank), Ltd., Cunard Liner "Carinthia", 199
Brown, John, Land Boilers, Ltd., Carrington Power Station, 124
Bruce, C. E. R., Static in the Stars ? 230
Bruce Peebles and Co., Ltd., Garry and Moriston Hydro-Electric Schemes, 577, 647; Impulse Tests on 275 kv. Super-Grid Transformer, 241
Brunner, Adolf, Obituary, 900
Brush Electrical Engineering Co., Ltd., Self-Contained Turbo-Chargers, 57 ; Fibre Blending and Carpet Plant, 705
Bryon, J. F. W., James Nasmyth 1808-1890, (Letter, 236)
Buchanan, James, and Sons Ltd., Carbonisation and Chemical Plant at Wingerworth, 623, 655
Buck and Hickman, Ltd., "Valvetrace" Milling Machine ; Face Grinding Machine, 8
Bucks Water Board, Homogeneous Earth-Fill Dam of the Foxcote Reservoir, 618
Budworth, David, Ltd., Manufacture of a Whales Head, 896
Building Research Board, Annual Report, 291
Bullows, Alfred, and Sons Ltd., Portable Spray Painting Plant, (638)
Bull's Metal and Marine, Ltd., Troopship "Nevasa", 162
Bureau of Reclamation, New Construction Programme, 249
Burns, R. M., Acheson Medal Award, (743)
Burton, A. G., Ltd., Kariba Hydro-Electric Scheme on the Zambesi River, 155
Butler Machine Tool Co., Ltd., Hydraulic Open-Side Planing Machine, 11 ; Precision Tool-Room Slotting Machine, 11
Bywater, William, Ltd., Fibre Blending and Carpet Plant, 705

C

C.A.V. Ltd., Distributor Pump for Diesel Engines, 373 ; Electrical Gear Change Control, 470 ; Engine Equipment, (830)
Campbell, Gifford and Morton, Ltd., Metal Cleaning and Electro-Plating Factory, 97
Carbon Dioxide Co., Calder Hall Power Station, 500, 537
Carmichael, C. D., Development of the "Deltic" Engine, 700
Carter, A. C., Hydraulic Self-Aligning Seating, 232
Carter, N., M. S. Bergensfjord, (875)
Carter-Horsley, Newsprint Mill at Kemsley, 851, 888
Carves, Simon, Ltd., An Industrial Establishment for Nuclear Power Development, 271 ; Carbonisation and Chemical Plant at Wingerworth, 623, 655
Castingite, Ltd., Cleaning Process for Castings, 25
Cave, F. H., The State of the Ports, 522
Cementation Co., Ltd., Finlarig Power Station, 25 ; Kariba Hydro-Electric Scheme on the Zambesi River, 155 ; Newsprint Mill at Kemsley, 851, 888
Central Electricity Authority, Bradwell Nuclear Power Station, 98 ; 120MW Reheat Sets in Power Stations, 112 ; Carrington Power Station, 124 ; Ferrybridge Signalbox, (142) ; Two 120MW Sets at Belvedere Power Station, (178) ; High Marnham Power Station, 240 ; Cross-Channel Cable Project, 323 ; Fleetwood Power Station, 408 ; The Channel Cable, 433 ; Annual Report, 482 ; Consultation Machinery, 631 ; 550MW Generating Sets, 797 ; Proposed Site for Nuclear Power Station in Somerset, 797 ; Turbo-Generator with Water-Cooled Stator Windings, 854 ; 300MW Nuclear Power Stations for Great Britain, 891
C.E.R.N., European Proton Synchrotron, 243
Chamber of Shipping, Annual Dinner, 560

Figures in Brackets ( ) refer to paragraphs

Chamberlain Industries, Ltd., Hydraulically-Operated Truck-Mounted Crane, 412
Chambersburg Engineering Co., Industrial Nuclear Facilities Works in Virginia, 139, 176
Chard, E. A., Recording Techniques for Rolling Mill Operation Studies, 765
Chemical Engineering Wiltons Ltd., Carbonisation and Chemical Plant at Wingerworth, 623, 655
Cheshire Engineering, Ltd., Industrial Equipment Display, 341
Chloride Batteries Ltd., Calder Hall Power Station, 537 ; Garry and Moriston Hydro-Electric Schemes, 577
Christiani and Nielsen Ltd., Langstone Bridge, Hampshire, 377
Churchill, Charles, and Co., Ltd., Vertical Spindle Chucking Lathe ; Profile Facing Lathe ; Gear-Shaving Machine, 43
Civil Service Commissioners, Annual Report, 522
Clarke, Chapman and Co., Ltd., Cunard Liner "Carinthia", 199
Clayton, S. T., French Locomotive Experiences, (Letter, 402)
Clearing Machine Corporation, Automatic Transfer Feed Press Line for Automotive Wheel Production, 282
Cline and Co., Ltd., Fibre Blending and Carpet Plant, 705
Clifton and Baird, Ltd., Heavy-Duty High-Speed Cold Sawing Machine, 47
Climax Rock Drill and Engineering Works, Ltd., Twin-Drill Rigs for Trench Blasting Holes, (702)
Clyde Crane and Booth, Ltd., Carrington Power Station, 124
Cockcroft, Sir John, Scientific Problems in Development of Nuclear Power, 40
Cohen, George, Sons and Co., Ltd., Horizontal Milling Machine ; Machine Designed to Sharpen Tungsten Carbide Tipped Tools, 10
Coleman, D'Alton Corry, Obituary, (602)
Collier, W., and Co., Slotting Machine, 551
Colt Ventilation Ltd., Newsprint Mill at Kemsley, 851, 888
Colvilles Ltd., Calder Hall Power Station, 537
Commer Cars Ltd., 10-Ton and 12-Ton Tractors, 430
Commonwealth Edison Co., Issue of Construction Permits for Large-Scale Nuclear Power Stations, 175
Commonwealth Engineering Co., Ltd., Railcars in Australia, (34)
Communication Systems, Ltd., Cunard Liner "Carinthia", 199
Compoflex Co., Ltd., Quarterly Magazine on Flexible Tubes and Hoses, (699)
Confederation of Shipbuilding and Engineering Unions, Annual Conference, 242
Consett Iron and Steel Co., Ltd., Calder Hall Power Station, 537
Consolidated Edison Co., Industrial Nuclear Facilities Works in Virginia, 139, 176 ; Issue of Construction Permits for Large-Scale Nuclear Power Stations, 175
Cooke, William, and Co., Ltd., Wire Rope Works, 309
Coombes, L. P., Aeronautical Development in Australia, 741
Copas, B. A., Storm Water Storage Calculations, 684
Corrosheath Ltd., Aluminium Sheathing, 487
Corrosion Ltd., Metal Protection, (932)
Costain-John Brown Ltd., Calder Hall Power Station, 537
Costain, Richard, Ltd., Kariba Hydro-Electric Scheme on the Zambesi River, 155 ; North of Scotland Hydro-Electric Schemes, Garry and Moriston, 503, 545
Couling, S. A., Tooth Gearing and Research, 915
Council of Industrial Design, Design Research, (95)
Courtaulds Ltd., Rayon Cord Tyres, (868)
Coventry Climax Engineering Co., Ltd., 1.5-litre Engine, 585
Cowlin, F. J., Obituary, 39
Coyne, A., and J. Bellier, Kariba Hydro-Electric Scheme on the Zambesi River, 155
Crane Packing Ltd., Flexible P.T.F.E., Bellows, (530) ; Corrosion Protection for Springs, (602)
Cranfield Brothers, Ltd., Electrical Drive for a Flour Mill, 167
Crittall Manufacturing Co., Ltd., Coal Tar as Fuel for Gas Turbine, 153
Crittall, Richard, (Marine) Ltd., Twin Screw Tug "Takoradi", 484
Crompton Parkinson Ltd., Electrical Drive for a Flour Mill, 167
Crossley Brothers Ltd., Problem of Rising Costs, 597
Crowe, T. A., Motive Power on Sea and Land, 580, 614
Crowley Russell and Co., Ltd., Inauguration of the Daer Water Supply in Lanarkshire, 592
Crowthorne Engineering Co., Ltd., Lathe for High-Speed Production, 48
Crypton Equipment Ltd., Flywheel Magneto Testing, (458)
Cunard Steam Ship Co., Ltd., Cunard Liner "Carinthia", 199
Cutts, B., Calder Hall Reactors, 771

D

D'Albiac, Sir John, London Airport, 643
Dana, R. W., Obituary, 798
Danks of Netherton, Carrington Power Station, 124
Darlington Insulation Co., Ltd., Calder Hall Power Station, 537
Davey, Paxman and Co., Ltd., Railway Oil Engines, (42) ; Oil Well Drilling Package Units, 706 ; Diesel Engine Speed Increase, (932)
Davies, Arthur, Obituary, (566)
Davies, Hubert, and Co., Kariba Hydro-Electric Scheme on the Zambesi River, 155
Davis, A. W., Marine Steam Turbine, (904)
Davis, Stuart, Ltd., Spur Gear Grinder ; Universal Automatic Press ; Automatic Internal Grinder, 10
Davy and United Engineering Co., Ltd., Electrical Drive for Five-Stand Tandem Cold Mill at Velindre, 661
De Beers Consolidated Mines, Ltd., Superphosphate Plant for Salisbury, 63
de Havilland Aircraft Co., Ltd., Jet Airliner, (709)
Decca Radar Ltd., True Motion Radar, 707
Demag A.G., Rhine Bridge, Mannheim-Ludwigshafen, (1/4)
Dempster, Robert, and Sons Ltd., Works Pickling Plant, 660
Denham's Engineering Co., Ltd., 22in. Heavy-Duty Lathe, 50
Dennis Bros. Ltd., "Loline" Double-deck Bus, 430 ; Bulk Oil Dispensing Vehicles, 669
Denny, William, and Bros., Ltd., Steamer "Duke of Rothsay", 307
Department of Scientific and Industrial Research, Directing Research Establishments, 28 ; Bill Third Reading, 75 ; Road Research in 1955, 147 ; Expenditure on Research and Development, 362
Desoutter Brothers Ltd., Rivet Setter, 365
Deutsche Werft, German Super Tankers, 675
Dewrance and Co., Ltd., Calder Hall Power Station, 537 ; Newsprint Mill at Kemsley, 851, 888
Dexion Ltd., Slotted Angles, (494)
Dial Automatic Scale Co., Ltd., Fibre Blending and Carpet Plant, 705
Dickerson, P. D., Design of Ingots for High Output in the Slabbing Mill, 765 ; Time Characteristics of the Slabbing Mill, 765
Distillers Co., Ltd., Calder Hall Power Station, 500
Dominion Bridge Co., Ltd., Canadian Structural Engineering Firm's Expansion Programme, 669
Donkin and Co., Ltd., Cunard Liner "Carinthia", 199
Dorey, S. F., Retirement, 643
Dortmund-Horder Hutten-Union, Slabbing Mill begins Operation, 454
Dowding and Doll, Ltd., Spline Rolling Machine ; Copying Lathe ; Automatic Hydraulic Copying Milling Machine ; Vertical Fine Boring Machine, 44
Drysdale and Co., Ltd., Twin Screw Tug "Takoradi", 484
du Pont de Nemours, E. I., and Co., Fabrication of Frictional Parts from "Teflon" Fibre, 32
Duckham, Alexander, and Co., Ltd., Measurement of Cutting Tool Performance with Radioactive Isotopes, 127
Dunford and Elliott Process Engineering Ltd., Rotary Cooler for Granular or Powdered Materials, 897
Dunlop Research Centre, Irradiation Laboratory, 309
Dunlop Rim and Wheel Co., Automatic Transfer Feed Press Line for Automotive Wheel Production, 282
Dunlop Rubber Company, Aircraft Brake Testing, 520
Durrwerke, A. G., Tuncbilek Power Station, 65

E

E.N.V. Engineering Co., Ltd., Continuous Carburising, 308
East African Breweries, Ltd., Electrical Equipment for Malting Plant in Nairobi, 204
Eastern Electricity Board, Electrical Drive for a Flour Mill, 167
Eastern Gas Board, East Anglian Gas Grid, (165)
Eastern Region of British Railways, Diesel Maintenance Depot at Stratford, (318)
Eaton Manufacturing Co., Magnetic Dry-particle Clutch, 585
Edwards, F. J., Ltd., Motor-Driven Swing-Beam Press Brake, 8
Eisenwerk Rothe Erde G.m.b.H., Wire Race Ball and Roller Bearings, 525
Elders and Fyffes Ltd., Twin-Screw Liner "Camito", 860
Electric Furnace Co., Ltd., Calder Hall Power Station, 500, 537
Electricite de France, The Channel Cable, 433
Electro-Chemical Engineering Co., Ltd., Metal Cleaning and Electro-Plating Factory, 97
Elgar Machine Tool Co., Ltd., Copy-Spinning and Flow-Forming Lathe ; Automatic Spline Hobbing Machine ; Automatic Production Milling Machine ; Piano-Milling Machine, 47
Ellison, George, Ltd., Medium Voltage Withdrawable Switchgear, 486
Elliston Evans and Jackson Ltd., 7½-Ton Grabbing Crane, 856
Enfield Cables Ltd., Newsprint Mill at Kemsley, 851, 888
English Electric Co., Ltd., Electrification of a Welsh Grit-Stone Quarry, 95 ; Abbey Works Slabbing Mill Drive, 98 ; Carrington Power Station, 124 ; Kariba Hydro-Electric Scheme on the Zambesi River, 155 ; Electrical Equipment for Malting Plant in Nairobi, 204 ; Fleetwood Power Station, 408 ; Diesel and Electric Locomotive Building in Lancashire, 413 ; Calder Hall Power Station, 537 ; Garry and Moriston Hydro-Electric Schemes, 577, 647 ; Fibre Blending and Carpet Plant, 705 ; 7½-Ton Grabbing Crane, 856
English Steel Corporation, Ltd., Stainless Lined Press Cylinder, 278 ; Calder Hall Power Station, 464, 537
Eonit Engineering Co., Ltd., Cement Silo, 737
Erftwerk, Aluminium Brightening Process, 174
Ericsson, L. M., Automatic Train Graphs, 674
Escher Wyss A. G., Controllable-Pitch Marine Propellers, 513 ; Coal-Fired Closed-Cycle Air Turbine Plant, 927
Esso A.G., Annual Report of a Hamburg Oil Company, 209 ; Expansion of Civil Aviation, 525
Esso Petroleum Co., Ltd., Surplus Refinery Gas, 147
Esso Tankschiff Reederei G.m.b.H., German Super Tankers, 675
Ether Ltd., Programme Temperature Controller, 746
Eumuco (England), Ltd., Forging Machine Feeding Device, (106)
Evans, Ifor, Old Students of University College London, (Letter, 402)
Eve, J. L., Construction Co., Ltd., Garry and Moriston Hydro-Electric Schemes, 577

F

Fairey Aviation Co., Ltd., Guided Missiles, 333 ; Photo-electric Safety Ohm-meter, 364
Fairey, Sir Richard, Obituary, 476
Falconer, J. M., Use of Wind Tunnel Techniques in Radio Engineering, 266
Farrel-Birmingham Co., Industrial Nuclear Facilities Works in Virginia, 139, 176.
Fawcett Finney Ltd., Hopper Loader for Injection Moulding Machines, (669)
Federal Power Board, Kariba Hydro-Electric Scheme on the Zambesi River, 155
Federation of British Industries, Overseas Scholarships, 112
Felco Hoists Ltd., Garry and Moriston Schemes, 647
Ferodo Ltd., "The Ferodo Story", (34)
Ferranti, Ltd., Carrington Power Station, 124 ; Kariba Hydro-Electric Scheme on the Zambesi River, 155 ; Factory for Electronic Digital Computers, 593
Fina Petroleum Products Ltd., Fuel Oil Calculator, (602)
Findlay, Alexander, and Co., Ltd., Calder Hall Power Station, 537
Firth-Vickers Stainless Steels Ltd., Fire-Bars, (837)
Flindt, C. B., Theory of Restrained Corrugated Diaphragms, 193
Florida Power Corporation, Industrial Nuclear Facilities Works in Virginia, 139, 176
Florida Power and Light Co., Industrial Nuclear Facilities Works in Virginia, 139, 176
Fluidrive Engineering Co., Ltd., Newsprint Mill at Kemsley, 851, 888
Ford Motor Co., Ltd., Automatic Pick-Up Hitch, 23 ; Industrial Equipment Display, 341 ; "Thames" Goods Vehicles, 430 ; Spline Rolling, 450 ; Fordson "Major" Tractor Refinements, 782
Forrest, J. S., High-Pressure Hydrogen-Oxygen Fuel Cell, 93
Foster Transformers, Ltd., High-Energy Spark Ignition Equipment for Oil Burners, 310
Fraser and Chalmers Engineering Works, Coal Preparation Plant in Australia, 486
Fuel Research Board, Reports for 1955, 112

G

G.E.C.-Simon-Carves Atomic Energy Group, 300MW Nuclear Power Stations for Great Britain, 891 ; An Industrial Establishment for Nuclear Power Development, 271
Garnett, P. and C., Ltd., Fibre Blending and Carpet Plant, 705
Gas Council, Annual Report, 522 ; Gas Industry Statistics, 170
Gascoignes (Reading), Ltd., Silver Medal Award, 25
Gear Grinding Co., Ltd., Spur Tooth Gear Grinding Machine ; Shaft Grinding Machine ; Involute Measuring Machine, 44
General Electric Co., Ltd., Fluorescent Lighting, 25 ; Ward-Leonard Control of Veneer Peeling Lathe, 96 ; Flameproof Loudspeaker Driving Unit, 165 ; 7kW Induction Heater, 240 ; Sound System for Colston Hall Organ Tuning, 241 ; An Industrial Establishment for Nuclear Power Development, 271 ; Air Turbine Testing, (350) ; Machine Shop for Apprentice Training, (386) ; Long Range Radar Installation at New York International Airport, 420 ; Daylight Monitor, 483 ; Coal Preparation Plant in Australia, 486 ; Garry and Moriston Hydro-Electric Schemes, 577 ; Industrial Triode Valves, (754) ; Small Bending Machine for Conduit Tubes, (792) ; 300MW Nuclear Power Stations for Great Britain, 891
General Motors, Buick "Centurion", 585
General Post Office, Weighing Machine, 427
Gent and Co., Ltd., Fibre Blending and Carpet Plant, 705
Geratebau Eberspacher, Automotive Turbo-Charger, 858
Gercke, M. J., Aerothermopressor, (Letter, 305)
Gerrard, J., and Sons, Ltd., Fleetwood Power Station, 408
Gibb, Sir Alexander, and Partners, Kariba Hydro-Electric Scheme on the Zambesi River, 155
Gibb, Coyne, Sogei (Kariba) (Pvt.), Ltd., Kariba Hydro-Electric Scheme on the Zambesi River, 155
Gilkes, Gilbert, and Gordon Ltd., Garry and Moriston Hydro-Electric Schemes, 577 ; Inauguration of the Daer Water Supply in Lanarkshire, 592
Gill, John, Contractors, Ltd., Carrington Power Station, 124
Glasgow Water Department, Annual Report, (286)
Gleeson, M. J., Ltd., Fleetwood Power Station, 408 ; Carrington Power Station, 124
Glenfield and Kennedy Ltd., Inauguration of the Daer Water Supply in Lanarkshire, 592 ; Garry and Moriston Hydro-Electric Schemes, 545 ; Pumping Plant for the Wallasey Impounding Station at Mersey Docks, 129
Glover, W. T., and Co., Ltd., Carrington Power Station, 124
Goodeve, Sir Charles, Steelmaking Since Bessemer, 329 ; Research and Road Traffic, 835
Goodlet, B. L., Calder Hall Reactors, 771
Goodyear Tyre and Rubber Co., Ltd., Annular Piston Brake, 365 ; Anti-Skid Braking, (530)
Gough, H. J., Changing Nature of the Fatigue Problem, 359
Gourley, H. J. F., Obituary, 910 ; Presidential Address, 649
Grantham Electrical Engineering Co., Ltd., Tyre Drier, 671
Green, E., and Son, Ltd., Cunard Liner "Carinthia", 199
Gresham Transformers Ltd., Newsprint Mill at Kemsley, 851, 888
Grisveson, S., Road Research, (Letter, 236)
Griffiths, W. H. F., Decade Air Condenser, 691, 728
Griggs and Son, Ltd., Proposal for a Fully Automatic Multi-Storey Garage, 607
Gronblad, K., Automatic Stock Level Control on Blast Furnaces, 800
Guest, Keen and Nettlefolds, Ltd., Profits and Trade, 28
Gunner, A. M., Calculation of Backlash Between Gear-Teeth, 734 ; Gear Standards, 694
Gutehoffnungshutte A.G., German Industrial Gas Turbine, 65
Gutehoffnungshutte Sterkrade A.G., Coal-Fired Closed-Cycle Air Turbine Plant, 927
Guy, Sir Henry Lewis, Obituary, 111
Gwynnes Pumps, Ltd., Pumping Plant for the Wallasey Impounding Station at Mersey Docks, 129

H

Hackbridge and Hewittic Electric Co., Ltd., Carrington Power Station, 124 ; Expansion of Transformer and Rectifier Factory, 703
Hahnsche Werke A.G., Erection of Broad-Strip Rolling Mill, 102
Halcrow, Sir William, and Partners, Garry and Moriston Hydro-Electric Schemes, 545
Hall, J. and E., Ltd., Cunard Liner "Carinthia", 199 ; Twin-Screw Liner "Camito", 860
Hall, Matthew, and Co., Kariba Hydro-Electric Scheme on the Zambesi River, 155
Halmatic, Ltd., Experimental High Speed Launch, 26
Hamworthy Engineering Ltd., Screw Pumps, (792)
Hanovia (Lamps Division of Engelhard Industries Ltd.), Radiant Heaters, 743
Harding, J. R., All-Weather Connectors for Aluminium-to-Copper Conductors, (Letter, 402)
Hardon Precision Engineering Co., Ltd., Air-operated Vice, (630)
Harland Engineering Co., Garry and Moriston Schemes, 647
Harland and Wolff, Ltd., Steamers "Duke of Lancaster" and "Duke of Argyll", 307
Harris, P. K., (Shipbuilders), Ltd., Manchester Ship Canal Tug "Sabre", 342
Harrison, P. W., Oil Test Laboratory, (Letter, 122) ; Optical Instrument for Measuring Camber on Large Rolls, 327
Harza Engineering Co., Construction of the Priest Rapids Dam in Washington, 565
Hastings, W. W., Recording Techniques for Rolling Mill Operation Studies, 765
Haug, Kaare, M. S. Bergensfjord, (875)
Hayward Tyler Ltd., Calder Hall Power Station, 537
Head Wrightson Machine Co., Ltd., Automatic Triple-Draw, High-Speed Drawbench, 375
Headland Engineering Developments Ltd., Machine Clamp, (830)
Heenan and Froude, Ltd., Cold Strip Forming Machine, 48
Henderson, J., Combined Stress Creep Fracture of a Commercial Copper at 250 Deg. Cent., 261, 299
Henderson and Keay, Ltd., Machining of Turbine Castings, 208
Herbert, Alfred, Ltd., Machine Tool Demonstration at Manchester, (458) ; Travelling Scholarship, 535
Hess Products, Ltd., Cationic and Nonionic Chemical Plant, 131
Heywood, W. H., Ltd., Newsprint Mill at Kemsley, 851, 888
Hick, Hargreaves and Co., Ltd., Pumping Plant for the Wallasey Impounding Station at Mersey Docks, 129
Higginson, G. R., Strength of a Tube Under Local External Pressure, 428
Higgs and Hill Ltd., Newsprint Mill at Kemsley, 851, 888
Hinton, Sir Christopher, Place of Calder Hall Reactor in Nuclear Power Generation, 726
Hodge, John Blackwood, and Co., Ltd., Twin-Engine Two-Stroke Track Layer, 628
Hollings, James Spencer, Obituary, 3
Holman Brothers Ltd., Automatic Control and Warning Equipment for Air Compressors, 824 ; Colour Film, (70)
Holme, E., and Co. (1931) Ltd., Garry and Moriston Hydro-Electric Schemes, 577
Holmes, W. C., and Co., Ltd., Electrostatic Air Filter, 824 ; Oil Mist Precipitator for Machine Shops, (704)
Hommelwerke, Suction-Clamped Test Indicator Stand, 30
Hopkinsons Ltd., Calder Hall Power Station, 537 ; Carrington Power Station, 124
Hordern, Mason and Edwards, Ltd., 100-Ton Open-Front, Geared Press, 49
Horne, M. R., Effect of Distortion of a Stiff-Jointed Frame on its Plastic Collapse Load, (Letter, 87)
Horwitch Smith and Co., Ltd., Polymer Deposition, 434
Hosking, J. R., Efficiency of Screening Operations for Roadmaking Aggregates, 258
Howaldtswerke (Hamburg), German Super Tankers, 675
Howarth Walker and Liley, Fibre Blending and Carpet Plant, 705
Hudson, Sir Austin, Bt., Obituary, 797
Hume Atkins and Co., Ltd., Garry and Moriston Schemes, 647
Hunter, Philip Vassar, Obituary, 571, 608
Hunting Percival Aircraft, Ltd., Executive Aircraft, 333
Hunting Technical Services, Ltd., Development of Natural Resources, (318)
Hydrauliska Industri Aktiebolaget, Lorry Loader, 633
Hymatic Engineering Co., Ltd., Non-Magnetic Compressor, (241) ; Pneumatic Stop Valve, (286)

I

Imperial Chemical Industries, Ltd., Superphosphate Plant for Salisbury, 63 ; Explosives Manufacturing Plant at Ardeer, 91 ; Prices Stabilised, 170 ; Heat Transfer Panels, 521 ; Moulded Polythene Tube Fittings for Plumbing Systems, 671
Imperial College of Science and Technology, Expansion, (318)
Impresa Umberto Girola, Kariba Hydro-Electric Scheme on the Zambesi River, 155
Imprese Italiane Allestero S.p.A., Kariba Hydro-Electric Scheme on the Zambesi River, 155

Impresit (Kariba) (Pvt.), Ltd., Kariba Hydro-Electric Scheme on the Zambesi River, 155
Impresit (South Africa) (Proprietary), Ltd., Kariba Hydro-Electric Scheme on the Zambesi River, 155
Impressa Ing. Lodigiani S.p.A., Kariba Hydro-Electric Scheme on the Zambesi River, 155
Innocenti, Machining of Turbine Castings, 208
International Combusion, Ltd., Test House for Grinding, Screening and Filtering Equipment, 166
International Commission on Irrigation and Drainage, Third Congress, 169
International Harvester Co. of Great Britain Ltd., Baler, 815 ; Skid-Shovel, 737
International Marine Radio Co., Ltd., Cunard Liner "Carinthia", 199
Iron and Steel Board, Iron and Steel, 99, 242 ; Iron Castings Production, 311 ; Funds, 311
Irvine-Brown, L., Steel Works Locomotives, (Letter, 268)

J

Jaeger, J. C., Study of Underground Water Movements by Measurements in Drill Holes, 76
Jaguar Motors Ltd., Mark VIII Saloon, 552
Jarvis, J., and Sons, Ltd., Automobile Transmission Factory, 133
Jenkins, D. E., Effect of Distortion of a Stiff-Jointed Frame on its Plastic Collapse Load, (Letter, 20)
Jenkins, Robert, and Co., Ltd., Calder Hall Power Station, 537
Jenskins, W. and J., and Co., Ltd., Carrington Power Station, 124
Johnson, A. E., Combined Stress Creep Fracture of a Commercial Copper at 250 Deg. Cent., 261, 299
Johnson, A. J., Some Observations on Local Vibration, (792)
Johnson, T. W., Measurement of Gas Transit Times in a Blast Furnace, 800
Johnson and Phillips, Ltd., Aluminium Cable Soldering, 96 ; Newsprint Mill at Kemsley, 851, 888
Jones, A. A., and Shipman Ltd., Technical Films, (566) ; Circular Form Tool Grinding Machine, 861
Jones, H. G., Time Characteristics of the Slabbing Mill, 765 ; Design of Ingots for High Output in the Slabbing Mill, 765
Jones, R. P. N., Some Uses of a University, 152 ; Resonance Stress Testing, (Letter, 402)
Jones, W. K., Conservation of Natural Resources, 498, 499

K

Kaiser Aluminium and Chemical Corporation, All-Weather Connectors for Aluminium-to-Copper Conductors, 347
Kapp, Reginald O., Tesla's Contribution to Electrical Engineering, 371
Karaiba Transport Co., Kariba Hydro-Electric Scheme on the Zambesi River, 155
Karrier Motors Ltd., 10-Ton and 12-Ton Tractors, 430
Kay and Co. (Engineers) Ltd., Hydraulic Pipe Coupling, 377
Kearns, H. W., and Co., Ltd., Horizontal Toolroom Boring Machine, 7
Keelavite Rotary Pumps and Motors, Ltd., Hydraulic Power Pack, 50
Keith Blackman Ltd., Shot Cleaning for Heat Exchanger Surfaces, (678)
Kellogg International Corporation, Opening of Kellogg House, (904)
Kelvin and Hughes Ltd., Attitude Indicator, 364
Kelvin and Hughes (Marine), Ltd., Cunard Liner "Carinthia", 199 ; Echo Range and Sounding Fishing Equipment, 559 ; Marine Radar Equipment, 239
Kennedy and Donkin, Garry and Moriston Hydro-Electric Schemes, 577
Kent, George, Ltd., Calder Hall Power Station, 537 ; Newsprint Mill at Kemsley, 851, 888 ; Slack-Diaphragm Pressure Controllers, 595
Kenyon, William, Ltd., Newsprint Mill at Kemsley, 851, 888
Keown, J. E., Loading in Bracket Bolting, (Letter, 86)
Kerry's (Engineering) Co., Ltd., Ultrasonic Cleansing Plant, 49
Kerry's (Great Britain) Ltd., Machine Tool Manufacturers' Exhibition, (830) ; Ultrasonic Cleansing Plant, 49
Khalil, K. H., Conditions of Failure in some Turbine Diaphragm Blades, 78
Kieler Howaldswerke, German Super Tankers, 675
Kiers Ltd., Newsprint Mill at Kemsley, 851, 888
King, J. W. H., Effect of Distortion of a Stiff Jointed Frame on its Plastic Collapse Load, (Letter, 20)
Kjellman, I., Automatic Stock Level Control on Blast Furnaces, 800
Klingelnberg, W. Ferd, Sohne, Involute and Helix Tester for Large Gears, 561
Klockner-Humboldt-Deutz A.G., Four-wheel Drive Tipper, 430
Knight, N. V., Concept of Irrigation Diversion Headworks, (Letter, 304)
Knowles, Wilson, and Sons, Fibre Blending and Carpet Plant, 705
Kodak Ltd., Colour Densitometer, 671
Kohlescheidungs - Gesellschaft, Coal - Fired Closed-Cycle Air Turbine Plant, 927
Koninklijke Nederlandsche Stoomboot Maatschappii, Centenary, 562
Koppers Company, Carbonisation and Chemical Plant at Wingerworth, 623, 655

L

Laing, John, and Co. (Rhodesia), Kariba Hydro-Electric Scheme on the Zambesi River, 155
Laing, John, and Son, Ltd., Career in Construction, (904)
Lancaster and Tonge Ltd., Inverted Bucket Steam Trap, 487
Land, E. H., Award of Howard N. Potts Medal, 637
Laurence, Scott and Electromotors, Ltd., Cunard Liner "Carinthia", 199
Leder and Cie Ltd., Self-Tensioning Belt Drive, 675
Leggat, Hugh, Ltd., Inauguration of the Daer Water Supply, 592
Leliavsky, S., Cut-offs in Modern Hydraulic Diversion Works on Alluvial Rivers, 184, 228 ; Modern Dewatering Methods in Irrigation Problems, 114, 148
Le Tourneau-Westinghouse Company, Motor Grader Equipped with Torque Converter, 931
Leverton, H., and Co., Ltd., Silver Medal Award, 25
Lewicki, W., Theory of Hydrodynamic Lubrication in Parallel Sliding, (Letter, 336)
Lex Garages Ltd., Underground Urban Parking, 835
Leyland Motors, Ltd., "Buffalo" Truck ; Forty-Seater Coach ; "Atlantean" Double-Deck Bus, 392 ; Rear-Engined Double-Decker Bus, 339
Lightfoot Refrigeration Co., Ltd., Low-Temperature Test Cabinet, (286)
Lind, H. P. T., Obituary, 885
Lindsay, F. E., One-Tooth Pinions, 368
Lister, R. A., and Co., Ltd., Diesels in Industry, (142) ; Small Diesel Engine, 737
Livesay, E. H., Further French Locomotive Experiences, 188, 221, 256, 292, 324, 366, 400, 474, (Letter, 368) ; Rebuilt Chapelon "Pacifics", 734
Lloyd-Hamol Ltd., Silicone Barrier Preparation, (602)
Lloyd's Register, Shipbuilding Returns, 219, 571 ; Statistical Tables, 835 ; Wreck Returns, (178), (530), (792)
Lockers Engineering Ltd., Newsprint Mill at Kemsley, 851, 888
London Aluminium Co., Ltd., Aluminium Brightening Process, 174
London County Council, Rejection of Development Schemes at Victoria Station, 499
London General Omnibus Co., One Hundred Years' Omnibus Operation, 89
London and Glasgow Shipbuilding and Engineering Co., Cunard Liner "Carinthia", 199
London Transport, Aldenham Bus Repair and Overhaul Works, 626 ; Electrification of the Epping-Ongar Line, 643 ; Signal Installation at Farringdon, (932) ; Review of 1955, 427
Longden, H. A., Post-War Development in the Coal-Mining Industry, 918
Longworth, Thomas, (Sales), Ltd., Cooling System for Weaving Shed, 310
Lotus Engineering Co., Ltd., "Le Mans" Sports/Racing Car, 552 ; Sports Car, 585
Low, A. M., Obituary, 391
Lucas, Joseph, (Industries) Ltd., The Automobile Industry's Outlook
Lumsden Machine Co., Ltd., Four-Head Continuous Grinder, 46
Lund, John, Ltd., Combined Hydraulic Tailstock and Wheel Truing Equipment for Cylindrical Grinder, 9
Lyon, G., How to Avoid Building Roads, 810

M

McAlpine, Sir A., and Son, Ltd., Carrington Power Station, 124
McCracken, Andrew, and Co., Ltd., Inauguration of the Daer Water Supply, 592
MacGregor, Robert, Obituary, (566)
Mackay, J. E., Obituary, (106)
McLellan and Partners, Electrical Drive for Five-Stand Tandem Cold Mill at Velindre, 661
Macmillan, R. H., Control System Nomogram, 195
Maihak A. G., Remote-Reading Inclinometer, 490
Malcolm and Allan Ltd., Garry and Moriston Hydro-Electric Schemes, 577
Manchester Ship Canal Co., Manchester Ship Canal Tug "Sabre", 342
Manganese Bronze and Brass Co., Ltd., Cunard Liner "Carinthia", 199
Mannesmann-Export G.m.b.H., Tuncbilek Power Station, 65
Marbaix, Gaston E., Ltd., Contouring Lathe ; Hydraulic Surface Grinder ; Oscillating Shaving Press ; Automatic Press ; Honing Machine, 45
Marconi's Wireless Telegraph Co., Ltd., British Research into Radio Propagation by Tropospheric Scatter, 595
Markland, A. D., Obituary, (566)
Marples Ridgway and Partners, Ltd., Opening of Dry Dock on the River Tyne, 413
Marryat and Scott, Ltd., Lift Planning Rule, (142)
Marshall, Fleming and Co., Garry and Moriston Schemes, 647
Marshall, Sons and Co., Ltd., New Earthmoving Equipment, (295)
Martin, B. W., Performance Characteristics of Free Piston Compressor, 4
Martin, Glenn L., Company, Packaged Nuclear Reactors, 753
Maschinenfabrik Herkules, Heavy-Duty Roughing Roll Lathe, 30
Masing, G., Obituary, 525
Massey-Harris-Ferguson, Ltd., Self-Propelled Combine-Harvester ; Tractor-Mounted Spinner Broadcaster ; Reinforced Rubber Tyre Tracks ; Mid-Mounted Industrial Mower, 23 ; 37 B.H.P. Agricultural Tractor, 479
Masson Scott Co., Ltd., Newsprint Mill at Kemsley, 851, 888
Mather and Platt, Ltd., Carrington Power Station, 124 ; Newsprint Mill at Kemsley, 851, 888
Mathew Brothers Ltd., Attachment for Tractor-Mounted Tools, 737
Mathur, V. D., Combined Stress Creep Fracture of a Commercial Copper at 250 Deg. Cent., 261, 299
Matling Ltd., Heavy Tool and Die Handling Equipment, (566)
Matthew Hall and Co., Ltd., Calder Hall Power Station, 537
Maunsell, G., and Partners, Opening of Dry Dock on the River Tyne, 413
Meadows, Henry, Ltd., Four Automotive Diesel Engines, 405
Mechanical Engineering Research Board, Report for 1955, 112
Menter, J. W., Direct Observation of Defects in Crystal Lattices, 6
Merritt, H. E. Calculation of Backlash Between Gear-Teeth, 438 ; Whither British Standards for Gears, 547
Merritt-Chapman and Scott Corporation, Construction of the Priest Rapids Dam in Washington, 565
Mersey Docks and Harbour Board, Pumping Plant for the Wallasey Impounding Station at Mersey Docks, 129
Merz and McLellan, Constructional Progress at Chapel Cross Nuclear Power Station, 94 ; Finlarig Power Station, 25 ; Kariba Hydro-Electric Scheme on the Zambesi River, 155 ; Turbo-Generator with Water-Cooled Stator Windings, 854
Metalastik Ltd., Variable Spring Rate Rubber Suspension System, 470
Metallic Extractors (Non-Ferrous), Ltd., Copper Residue Valuation, (59)
Metcalf, B. L., Post-War Development in the Coal-Mining Industry, 918
Metropolitan-Vickers Electrical Ltd., Calder Hall Power Station, 464, 537 ; Radioactive Cobalt Therapy Unit, 42 ; Carrington Power Station, 124 ; Kariba Hydro-Electric Scheme on the Zambesi River, 155 ; Rectifier Arc-Welding Set, 310 ; Fleetwood Power Station, 408 ; Infra-Red Curing of Varnish and Lacquer on Photo-Lithographic Rollers, 670 ; Turbo-Generator with Water Cooled Stator Windings, 854 ; Heavy Welding Manipulator, 897
Michigan Tool Corporation, Spline Rolling, 450
Microcell Ltd., Glass-Reinforced Plastic Water Tanks, 737
Midland Region of British Railways, Block Signalling Instrument of Unit Construction, 410
Millspaugh Ltd., Newsprint Mill at Kemsley, 851, 888
Ministry of Supply, Demonstration of Military Vehicles, 518
Mirrlees (Engineers), Ltd., Cunard Liner "Carinthia", 199
Mitchell Construction Co., Constructional Progress at Chapel Cross Nuclear Power Station, 94
Mitchell, Colman and Co., Ltd., "Almak" Multi-purpose Machine, 816
Mitchell, Fred, and Sons, Ltd., Fleetwood Power Station, 408
Mobil Oil Co., Ltd., Industrial Films, (678)
Mond Nickel Co., Ltd., Mining for Nickel, (265) ; Nickel Plating for Engineers, (904)
Monk, A., and Co., Ltd., Carrington Power Station, 124
Moore, R. V., Calder Hall Reactors, 771, 802 ; Development of Gas-Cooled Reactors for Power Production, 881
Morgan Brothers (Publishers) Ltd., Appointment of Chairman, 873
Morgan Crucible Co., Ltd., Electric Furnace Elements, (904)
Morgan, William, Coal Cutter Loader, 823
Morley, A. W., Gas Turbine Developments in Aeronautics, 16
Morris Commercial Cars Ltd., Forward Control 15 cwt. Vehicles, 430
Morris, H., Calder Hall Heat Exchangers, 841
Morrison, J. L. M., Criteria of Yield, 810
Motherwell Bridge and Engineering Co., Ltd., 300MW Nuclear Power Stations for Great Britain, 891
Mouchel, L. G., and Partners, Ltd., Fleetwood Power Station, 408
Mowlem, John, (Scotland) Ltd., 300MW Nuclear Power Stations for Great Britain, 891
Mullard Ltd., Triode for Industrial R.F. Generators, (754)
Munich Technical University, First German Reactor, 65
Murphy, A. J., Aircraft Materials, 885
Myford Engineering Co., Ltd., Cylindrical Grinding Machine, 708

N

Nairne Pyrites, Ltd., Modern Pyrite Plant Opened in South Australia, 205
Napier, D., and Son, Ltd., Gas Turbine Engines, 333 ; Rocket Engines, 333 ; Development of the "Deltic" Engine, 700
National Coal Board, New Department, 61 ; Canonbie Coalfield, (94) ; Coal Statistics, 391 ; Carbonisation and Chemical Plant at Wingerworth, 623, 655 ; University Scholarships, (868) ; Oiler for Mine Gauge Guide Ropes, (868) ; Underground Gasification of Coal, 873 ; Central Engineering Establishment, 893 ; Coal Preparation Plant in South Wales, 909 ; Coal Statistics, 909
National Industrial Fuel Efficiency Service, Second Progress Survey, 170
National Inspection Council, Change of Name from National Register of Electrical Installation Contractors, 28
National Physical Laboratory, Optical Instrument for Measuring Camber on Large Rolls, P. W. Harrison, 327
National Register of Electrical Installation Contractors, Change of Name to National Inspection Council, 28
National Research Corporation, Industrial Nuclear Facilities Works in Virginia, 139, 176
National Union of Mineworkers, Annual Conference, 61
Natural Asphalte Mineowners and Manufacturers Council, Mastic Asphalt, (530)
Natural Rubber Development Board, Rubber in Engineering, (205)
Naval Construction Research Establishment, 500-Ton Universal Vertical Testing Machine, 161
Negretti and Zambra Ltd., Pneumatic Instrumentation, 463
Nisbett, D. F., Recording Techniques for Rolling Mill Operation Studies, 765
Neulen, Martin, K. G., Motorised Glider, 454
Neumann, Dr. John Von, Enrico Fermi Award, 141
New Electronic Products Ltd., Artificial Heart and Lung Machine, 744
New Western Engineering Co., Ltd., Calder Hall Power Station, 537
Newstead, Gordon, Study of Underground Water Movements by Measurements in Drill Holes, 76
Newton and Bennett Ltd., Centrifugal Clutch, 470
Newton, Chambers and Co., Ltd., Carbonisation and Chemical Plant at Wingerworth, 623, 655
Newton Victor, Ltd., Radioactive Cobalt Therapy Unit, 42
Niagara Screens Ltd., Newsprint Mill at Kemsley, 851, 888
Nicol and Andrew Ltd., Rectification of Large Cylinders, (422)
Nicol, Hugh, Equation of Food and Fuel, 510
Noren, T. M., Cleavage Strength of Steel, (904)
Normalair Ltd., Lightweight Breathing Apparatus, (422)
North British Locomotive Co., Ltd., Diesel Engine Manufacture at a British Locomotive Works, 411
North-Eastern Region of British Railways, Reconstruction of Railway Bridge, (92) ; Track Lifting and Scarifying Equipment, 487
North of Scotland Hydro-Electric Board, Finlarig Power Station, 25 ; Garry and Moriston Schemes, 468, 503, 545, 577
Northern Aluminium Co., Ltd., Cantilevered Stand Roof, 27 ; Body-Building Sections, 521 ; Aluminium Portable Bridge, 855
Norton Grinding Wheel Co., Ltd., Surface Protection by Coating, 822
Nuclear Power Group, Industrial Nuclear Facilities Works in Virginia, 139, 176
Nuclear Power Plant Co., Ltd., 300MW Nuclear Power Stations for Great Britain, 891

O

O'Beirne, Thos. H., Gear Standards, 652
Optical Measuring Tools Ltd., Large-Capacity Projector for Inspecting Turbine Blades, 746
Orr, J. G., Professional Engineers and the Future, 693
Oxy-Catalyst Sales Ltd., An Oxidation Catalyst, 743

P

Pacific Gas and Electric Co., Sea Water Evaporators at the Morro Bay Steam Power Station, 315
Packman, G., Calder Hall Reactors, 771
Palmer Tyre Co., Ltd., Annular Piston Brake, 365
Paneletrik O.H.G., Moisture Content Meter, 634
Parker, Winder and Achurch Ltd., Translucent Flexible Doors, (740)
Parolle Electrical Plant Co., Ltd., Calder Hall Power Station, 500
Parsons, C. A., and Co., Ltd., Kariba Hydro-Electric Scheme on the Zambesi River, 155; Calder Hall Power Station, 464, 500, 537
Patent Automatic Machine Feeding Co., Ltd., Fibre Blending and Carpet Plant, 705
Paterson, Sir William, Obituary, 220
Pearson, T. B., and Sons, Ltd., Carrington Power Station, 124
Percival, Edgar, Aircraft Ltd., Aircraft for Agricultural Duty, (386)
Perkins, F., Ltd., Diesel Engine Mobile Training Equipments, (808)
Permutit Co., Ltd., Carbonisation and Chemical Plant, at Wingerworth, 623, 655
Perrin, J. F., Never be Short of Labour, 695
Petmar Industries Ltd., Fibre Blending and Carpet Plant, 705
Petrie and McNaught Ltd., Fibre Blending and Carpet Plant, 705
Petroleum Information Bureau, Oil Consumption, (142)
Petters Ltd., Low-Power Marine Diesel Engines, 515
Philip and Son, Ltd., Twin Screw Tug "Takoradi", 484
Philips Gloeilampenfabrieken, Improved Car Headlamp, 489
Phillips Petroleum Co., Industrial Nuclear Facilities Works in Virginia, 176
Phoenix-Rheinrohr A.G., Plastic Pipework, 29
Pilkington Brothers Ltd., High Voltage Glass Insulator Laboratory, 658
Pioneer Oilsealing and Moulding Co., Ltd., Sealing Rings, (670)
Pirelli General Cable Works Ltd., Garry and Moriston Hydro-Electric Schemes, 577, 647
Platt Malleable Castings Ltd., Automatic Moulding Equipment, 668
Plessey Co., Ltd., Magnetic Ferrite, (566) ; Ram Air Turbine, 365
Plessey Nucleonics Ltd., Calder Hall Power Station, 537
Plysec Products Ltd., Petrol-proof Aprons, (494)
Pollard and Co., Ltd., Special Purpose Machine, 48
Polymer Corporation Ltd., Rubber, 863
Porn and Dunwoody Ltd., Newsprint Mill at Kemsley, 851, 888
Postbox G.m.b.H., Collapsible Packing Container, 419
Poultney, E. C., Notable Locomotives of 1906, 731, 767
Powell Duffryn Carbon Products Ltd., Graphite Heat Exchangers, (830)
Power Reactor Development Co., Industrial Nuclear Facilities Works in Virginia, 139, 176
Priestley, Sir Raymond, Twentieth-Century Man Against Antartica, 296
Pritchett and Gold and E.P.S., Co., Ltd., Garry and Moriston Schemes, 647
Proudlock-Dunbar, O. M., Obituary, (602)
Pullin, Victor Edward, Obituary, 220
Pulsometer Engineering Co., Ltd., Vacuum Gauge, 205

Q

Qualters and Smith Bros., Ltd., Ultrasonic Cleansing Plant, 49
Quasi-Arc, Ltd., Metal-Rectifier Welding Set, 238 ; Welding Set Suspension Undergear, (350)

R

Radio Heaters Ltd., Crankshaft Hardening Machine, 485
Radley, Sir Gordon, World Telecommunications, 507
Ransomes and Rapier, Ltd., 12 Cubic Yard Walking Dragline, 274
Ransomes, Sims and Jefferies, Ltd., Tractor-Mounted Subsoiler and Mole Drainer, 24 ; Self-propelled Combine-harvester, 815
Redpath Brown, Newsprint Mill at Kemsley, 851, 888
Reeves, D. L., How to Avoid Building New Roads, 694
Registrar of Restrictive Trading Agreements, Appointment, (318)
Reilly Engineering Ltd., Electronic Tachometer, (364); Precision Internal Grinding Spindle, 519
Reliance Rubber Co., Anti-Static Mouldings, (792)
Rendel, Palmer and Tritton, Twin Screw Tug "Takoradi", 484
Republic Aviation Corporation, Lightweight High-Altitude Research Missile, 753
Reynolds, William, and Sons (Bedford) Ltd., Trench Digger, 815
Reyrolle, A., and Co., Ltd., Calder Hall Power Station, 537 ; Garry and Moriston Hydro-Electric Schemes, 577, 647
Rhein-Plastic-Rohr G.m.b.H., Plastic Pipework, 29
Rheinisch-Westfalische Elektrizitaetswerke A.G., River Lech Hydro-Electric Scheme, 173
Rheinische Gummi-und-Celluloid-Fabrik, Plastic Pipework, 29
Rhodes, Brydon and Youatt, Ltd., High-Temperature Circulating Pumps, 203
Rhodesian Power Lines (Pvt.), Ltd., Kariba Hydro-Electric Scheme on the Zambesi River, 155
Ricardo and Co. (1927), Ltd., Supercharger Development, 156
Richardson, P. C., and Co. (Middlesbrough), Ltd., Carrington Power Station, 124
Richardsons Westgarth (Hartlepool), Ltd., Fleetwood Power Station, 408
Ridgion, J. M., Studies of Blast Furnace Assessment, 800
Ridsdale, N. D., Obituary (286)
Riemsdijk, J. T. Van, French Locomotive Experiences, 368
Ritter, Fleck and Roller Maschinenfabrik A.G., Ward-Leonard Control of Veneer Peeling Lathe, 96
Robertson, A., Ltd., North of Scotland Hydro-Electric Schemes, Garry and Moriston, 503
Robertson, A. I. G., Irrigation Scheme in Malaya, 58
Robinson, W., Street Lighting and Safety, 759
Rocol Ltd., Industrial Greases, (932)
Rodger, John Wilfred, Obituary, 255
Rolls-Royce, Ltd., Experimental High Speed Launch, 26 ; Thrust Reversers, 333 ; "Hydramatic" Gearbox, 552
Roto-Finish Ltd., Metal Finishing Processes, 486
Rover Co., Ltd., Automatic Transmission, 585
Royal Aircraft Establishment, Aberporth, Missile Experiment, 629
Royal Naval Engineering College, at Manadon, 75
Rubery Owen and Co., Ltd., Automatic Moulding Equipment, 668
Rupert and Co., Ltd., Surface Roughness Specimens, (6) ; Suction-Clamped Test Indicator Stand, 30
Rural Industries Bureau, Report, 291

S

Saunders-Roe, Ltd., Rotating-wing Aircraft with Booster Rockets, 333
Scammell Lorries Ltd., "Super Constructor" Chassis, 430 ; 8 cubic yard Dump Truck, 737
Schenck, Carl, G.m.b.H., Balancing Machine for Cardan Shafts, 102
Schloemann Aktiengesellschaft, Multi-Roll Cold Rolling Mill, 246
Schwing, Friedrich Wilh., G.m.b.H., Compressed Air Concrete Placer, 381
Sciver, Mr., Some Problems in the Purification of Sewage, 355
Scoles, C. A., Pneumatic Measurement of Turbine Shaft Displacement, 763
Scottish Aviation, Ltd., Air Strips in Use, (318)
Scottish Mechanical Light Industries, Ltd., Silver Medal Award, 25
Scottish Machine Tool Corporation Ltd., Cold Hydraulic Ship Frame Bender, 520
Scottish Region, British Railways, Pre-Apprentice Training, 721
Sealdraught, Ltd., Self-Adhesive Seal, (202)
Self-Changing Gears Ltd., Automatic Control for Power-operated Epicyclic Gearboxes, 470 ; Fluid Coupling, 470
Selson Machine Tool Co., Ltd., Automatic Screw Machine ; Heavy-Duty Profiling Machine, 9 ; Vertical Boring and Turning Mill, 10
Semler, E. G., Never be Short of Labour, 619, 781
Senior, A. A., Coal Cutter Loader, 823
Senior, D. A., Ships' Speed Measurement, 80
Shapiro, Ascher, H., Aerothermopressor, 510
Sharp Control Gear, Ltd., Snap-Action Limit Switch, 133
Sharples Centrifuges Ltd., Continuous Automatic Swarf and Oil Separator, 515
Shell Austria A.G., Lubricating Oil Installation for Austria, 346
Shell Chemical Co., Ltd., Styrene Monomer Plant, (470)
Shell-Mex and B.P., Ltd., Dingle Bank Boiler Installation, 132 ; Bulk Oil Dispensing Vehicle, 669
Shell Petroleum Co., Folding Caravan, 27 ; Lubricating Oil Installation for Austria, 346; Kerosene Burning Appliances, (458)
Shergold, F. A., Efficiency of Screening Operations for Roadmaking Aggregates, 258
Shipbuilder and Marine Engine-Builder, Jubilee Number, (106)
Short Brothers and Harland Ltd., "Britannia" Air Liners, 797 ; Short S.C.1 Research Aircraft, 895
Siegener Eisenbedarf A.G. (S.E.A.G.), Two-Way Lifting and Tipping Goods Wagon, 30
Siemens-Schuckertwerke A.G., Individual Axle Drive for Electric Locomotives, 900
Sigmund Pumps Ltd., Centrifugal Pumping Set, 449 ; Self-Priming Contractors' Pump, 737
Simmonds Aerocessories Ltd., Films, (932)
Simms Motor Units, Ltd., Injector Inspection, 265 ; Automotive Turbo-Charger, 858
Simon-Carves, Ltd., Fleetwood Power Station, 408
Simon, Henry, Ltd., Soap Amalgamator, 409 ; Automatic Batching System, 596
Simplex Concrete Piles, Ltd., Carrington Power Station, 124
Skelton, Engineer Vice-Admiral Sir Reginald, Obituary, 356
Smith, E. H., (Westhaven), Ltd., Some Recent Industrial Developments, 128
Smith and Nephew, Ltd., Protective Marking Warning Tape, (350)
Smith, S., and Sons (England) Ltd., Magnetic Dry-particle Clutch, 585
Smith, William Allan, and Co., Garry and Moriston Schemes, 647
Smith-Clarke, G. T., Mechanical Breathing Machines, 876, 911
Societe Pradairol Poujardieu and Cie, All-Fuel Industrial Boiler, 562
Solar Aircraft Co., Gas-Turbine-Driven Auxiliary Electric Power Unit for Aircraft, 66
Sopwith, D. G., Criteria of Yield, 810
South Wales and Monmouthshire Radiotherapy Service, Radioactive Cobalt Therapy Unit, 42
Southern Gas Board, Surplus Refinery Gas, 147
Southern Region of British Railways, Barnes Station Accident Report, 157 ; Mobile School for Maintenance Staff, (458)
Spencer and Halstead Ltd., Fibre Blending and Carpet Plant, 705
Spencer, W. D., French Locomotive Experiences, 474
Staffordshire Technical College, Nuclear Engineering Course, (178)
Stamp, L. Dudley, Conservation of Land, 643
Stanat Manufacturing Co., Inc., Back-up-Driven Four-High Cold Strip Rolling Mill, 601 ; Industrial Nuclear Facilities Works in Virginia, 139, 176
Standard Motor Co., Ltd., "Vanguard Sportsman", 552
Standard Telephones and Cables Ltd., Garry and Moriston Hydro-Electric Schemes, 577
Stanton Ironworks Co., Ltd., Inauguration of the Daer Water Supply in Lanarkshire, 592
Starks, H. J. H., Parking in the U.S.A., 356, 396
Startrite Engineering Co., Ltd., Bandsawing Machine, 708
Stedall Machine Tool Co., Ltd., Worm and Thread Grinder ; Jig Boring Machine ; Carbide Tool Grinding Machine, 46
Steel Company of Wales, Velindre Tinplate Works, 28; Abbey Works Slabbing Mill Drive, 98 ; Calder Hall Power Station, 464, 537 ; Electrical Drive for Five-Stand Tandem Cold Mill at Velindre, 661; Axial Blast-Furnace Blower, 783
Steele's Engineering Products, Ltd., Crane Manufacturer's Laboratories (164) ; Mobile Crane Developments, 814
Steer, D. T., Design of Ingots for High Output in the Slabbing Mill, 765 ; Time Characteristics of the Slabbing Mill, 765
Stemag Steatit-Magnesia Aktiengesellschaft, Insulators for 380kV, 64
Stenners of Tiverton Ltd., Band Resaw with Hydraulically-Operated Feed, 591 ; Portable Log Mill, 824
Stephen, Alexander, and Sons, Ltd., Twin-Screw Liner "Camito", 860
Stewarts and Lloyds, Ltd., Carrington Power Station, 124 ; Inauguration of the Daer Water Supply in Lanarkshire, 592 ; Carbonisation and Chemical Plant at Wingerworth, 623, 655 ; Full-Scale Testing Station for Tall Structures, 821
Still, E. W., Air Conditioning in Aircraft, 683
Stokes, James, Further French Locomotive Experiences, 582
Stone, J., and Co. (Deptford), Ltd., Small Packaged Steam Generators, 277
Stone, J., and Co., (Holdings) Ltd., Glass-Reinforced Plastic Lifeboat, 376
Storhaven Engineering Ltd., Diesel Engine Starter, 740
Stothert and Pitt Ltd., 7½-Ton Grabbing Crane, 856 ; Agitator/Mixer Trucks for Concrete, 737
Strachan and Henshaw Ltd., Calder Hall Power Station, 537
Stretch, K. L., Engineers and Physicists, 368 ; Commissioning of Calder Hall No. 1 Reactor, 760
Sturtevant Engineering Co., Ltd., 851, 888
Sulphuric Acid, Ltd., Modern Pyrite Plant Opened in South Australia, 205
Sulzer Brothers, Ltd., Notes on the Brittle Fracture of Steels, 443 ; Diesel-Electric Locomotives for Eire, 485 ; Condensing Engine, 654 ; Axial Blast-Furnace Blower, 783
Sulzer, Gebr., A.G., Trials of Turbo-Charged Two-Stroke Marine Diesel Engine, 245
Superheater Co., Ltd., Cunard Liner "Carinthia", 199
Sutton Coldfield Electrical Engineers, Batch Counting Equipment, 709
Svenska, A. B., Use of Compressed Air Against Ice, 900
Swaminathan, V. S., Italian Oil and Gas Industry, 313, 344
Swan, A. W., Time Study and Statistics, 609, 644
Swedish Cellulose Company, Paper from Bark-Stained Timber, 381
Swedish State Power Board, High-Voltage Transmission Lines in Sweden, 209
Switchgear and Equipment Ltd., Garry and Moriston Hydro-Electric Schemes, 577, 647
Sykes, J. H. M., Energy from the Sea, 54 ; The Channel Cable, 433
Sykes, W. E., Ltd., High Precision Gear Hobbing Machine, (566)
Sykes, W. R., Interlocking Signal Co., Ltd., Block Signalling Instrument of Unit Construction, 410

T

Talbot Stead Tube Co., Ltd., Nylon Nuts, (932)
Talbot-Ponsonby and Co., Ltd., Heavy Tool and Die Handling Equipment, (566)
Tampa Electric Co., Industrial Nuclear Facilities Works in Virginia, 139, 176
Tate, G., and Son, Ltd., Slipway for Repair of Small Craft at Millwall, 683
Tatton-Brown, P. D., Welding at Calder Hall, 924
Taylor Tools and Supplies Ltd., Wet Belt Grinder, (638)
Taylor Woodrow (Building Exports) Ltd., Prefabricated Storage Building of 100ft. Span, 517
Taylor Woodrow Construction, Ltd., Carrington Power Station, 124 ; Calder Hall Power Station, 537
Technical and Scientific Films, Ltd., Diesels in Industry, (142)
Tensator Ltd., Constant Tension Spring, 630
Thames Dry Dock and Engineering Co., Ltd., Slipway for Repair of Small Craft at Millwall, 683
Thermodare (Great Britain) Ltd., Off-peak Electrical Heating, 483
Thermotank, Ltd., Troopship "Nevasa", 162 ; Cunard Liner "Carinthia", 199 ; Air Conditioning and Ventilating Development, 516 ; Twin-Screw Liner "Camito", 860
Thom, Lamont and Co., Ltd., Twin Screw Tug "Takoradi", 484
Thompson Bros. (Bilston) Ltd., Bulk Oil Dispensing Vehicle, 669
Thomson, Sir George, Physics and Technology, 297
Thomson, W., and Co., Ltd., Garry and Moriston Hydro-Electric Schemes, 577
Thornycroft, Oliver, Obituary, 291
Tiltmen Langley Laboratories, Break-Away Clutch, 629
Timber Development Association, Ltd., Timber Research Centre, 39
Torno, Dott. Ing. Giuseppe, and C.S.p.A., Kariba Hydro-Electric Scheme on the Zambesi River, 155
Towy Electrical Co., Electrification of a Welsh Grit-Stone Quarry, 95
Trade Union Congress, Report ; Agenda, 279 ; Eighty-Eighth, 343
Transport Commission, Design Panel, 597
Transport Equipment (Thornycroft) Ltd., "Big Ben" Turbo-charged Diesel Chassis, 430 ; "Swiftsure" 6-Ton Platform Lorry, 430
Trend Industrial Equipment Ltd., Drifting Tools, (541)
Tresises Drip Mat Co., Wood Pulp Board Washers, (792)
Trinidad Oilfield Service, Ltd., Oil-Engined Vehicles, 50
Trion Inc., Electrostatic Air Filter, 824
Tripp, G. W., New Turbine Steamers for Heysham-Belfast Service, 307
Tritton, J. S., Diesel Engines for Rail Traction, 719 ; The Special Requirements of Diesel Engines for Rail Traction, (754)
Tube Investments Ltd., Irradiated Plastic Tapes, (494) ; Plant Investment, 747
Tuplin, W. A., Calculation of Backlash between Gear-Teeth, 190, 510 ; One-Tooth Pinions, 438 ; Our Roads Are Perilous, 510 ; Let's Forget the Cycloid Tooth. 836
Turnbull, J., Hull Structures, (932)
Tyne Timber and Veneers, Ltd., Ward-Leonard Control of Veneer Peeling Lathe, 96

U

Union Fibre Pipes (Great Britain) Ltd., Pitch Fibre Pipes for Sewerage, 521
United British Caravan Co., Ltd., Folding Caravan, 27
United Filters and Engineering Ltd., Inauguration of Daer Water Supply in Lanarkshire, 592
U.K. Atomic Energy Authority, Constructional Progress at Chapel Cross Nuclear Power Station, 94 ; Report, 112 ; Atomic Energy Inventions, (214) ; Reactor Conference at Harwell, 291 ; Calder Hall Power Station, 537 ; Radioactive "Waste" for Deep Therapy in Great Britain, 607
United Lubricants, Ltd., Boundary Lubrication, 239
U.N. Technical Assistance Board, Eighth Annual Report, 29
U.S. Atomic Energy Commission, Construction of Research Reactor at M.I.T., 31 ; Industrial Nuclear Facilities Works in Virginia, 139, 176 ; Issue of Construction Permits for Large-Scale Nuclear Power Stations, 175 ; Work of, 491, 526
U.S. Bureau of Reclamation, Flood Control in the Columbia Basin, 349
U.S. Metallic Packing Co., Pumping Plant for the Wallasey Impounding Station at Mersey Docks, 129
United Steel Companies, Ltd., 12 Cubic Yard Walking Dragline, 274 ; Continuous Casting of Steel Billets, 374
University of Birmingham, Post-Graduate Courses in Highway and Foundation Engineering, (214) ; Summer School in Highway-Engineering, (167)
Upham, J. W. and A., Ltd., Launch of "Mayflower II", 427

V

Vacu-Blast, Ltd., Blast Cleaning Equipment for Large Plates, 169
Vapor International Corporation, Ltd., Small Packaged Steam Generators, 277
Vaporheat Ltd., Air Heating, 671
Vaughan Crane Company, Garry and Moriston Hydro-Electric Schemes, 577
Vauxhall Motors Ltd., 25/30 cwt. Van, 430
Venner Ltd., Process Timer, (792)
Vereinigte Industrieunternehmungen A.G., River Lech Hydro-Electric Scheme, 173
Vessey, H. F., Transonic Tunnel Testing Technique, 921
Vian, C. A., Appointed Chairman, 873
Vickers, Ltd., Cunard Liner "Carinthia", 199
Vickers-Armstrongs Ltd., Diesel-Electric Locomotives for Eire, 485
Vidal, J. F. B., Presidential Address, 427
Villiers Engineering Co., Ltd., 2,000,000th Engine, (494) ; Updraught Carburetters, 596
Voigtlander, Bi-Centenary, 525
Vokes Ltd., An Oxidation Catalyst, 743
Volkswagen Werke, Pick-up and Delivery Vans, 430
Volvo, A. B., "Volvo Six-wheeler Truck, 430 ; P.V.444 Sports Saloon, 585
Vosper, Ltd., Experimental High Speed Launch, 26
Vulcan Foundry, Ltd., Diesel and Electric Locomotive Building in Lancashire, 413

W

Wakefield-Dick Industrial Oils Ltd., Machine Tool Lubrication, (818)
Walker, John, and Sons, Ltd., Blending and Bottling Plant, 742
Walker and Smith (Batley) Ltd., Fibre Blending and Carpet Plant, 705
Wallace and Tiernan, Ltd., Carrington Power Station, 124
Waller, G., and Co., Ltd., Carbonisation and Chemical Plant at Wingerworth, 623, 655
Walmsley (Bury) Group Ltd., Newsprint Mill at Kemsley, 851, 888
Walton, T. and J., Ltd., Plastic for Engineering Applications, (286)
Ward, Thomas, and Co., Ltd., Newsprint Mill at Kemsley, 851, 888
Wasag Chemie A.G., Plastic Pipework, 29
Watford Engineering Works Ltd., Newsprint Mill at Kemsley, 851, 888
Watkins, T. L., Whymper and the Mont Cenis Tunnel, (Letter, 86)
Watson, W. and J. R., Ltd., Carrington Power Station, 124
Wayss and Freytag A.G., Tuncbilek Power Station, 65
Weatherill, F. E., Ltd., Hydraulic Loading Shovel, 737
Wedgwood, Sir Ralph, Obituary, 356
Weir, C. D., Heat Transfer to a Fluid Flowing in a Tube within a Radiating Enclosure, 780
Weir, G. and J., Ltd., Carrington Power Station, 124 ; Troopship "Nevasa", 162 ; Twin Screw Tug "Takoradi", 484 ; Calder Hall Power Station, 537
Weser, A. G., German Super Tankers, 675
West, Allen, and Co., Ltd., Newsprint Mill at Kemsley, 851, 888 ; 7½-Ton Grabbing Crane, 856
Western Region, British Railways, Railway Soil Mechanics Laboratory, (157) ; Inter-City Diesel Railcars, 164
Westinghouse Brake and Signal Co., Ltd., Dual Air Brakes, (581)
Weston, G., Gear Standards, 734
Whalley, W., London's Water Supply, (Letter, 196)
Wharton Crane and Hoist Ltd., Calder Hall Power Station, 537
Whatlings Ltd., Garry and Moriston Hydro-Electric Schemes, 545
Whessoe Ltd., Calder Hall Power Station, 464, 537
Whipp and Bourne Ltd., Calder Hall Power Station, 537
White, Thomas, and Sons, Ltd., Double-Spindle Automatic Shaper, 11
Whitehouse, A. M., Studies of Blast Furnace Assessment, 800
Whitlock Brothers Ltd., Dragline Ditch Cleaner, 815
Whitworth, Sir W. G. Armstrong, Aircraft Ltd., Turbine Transport (494)
Wiggin, Henry, and Co., Ltd., Welding of High-Nickel Alloys, (34)
Wiggins, C. L., Volta River Project, (Letter, 402)
Wild-Barfield Electric Furnaces, Ltd., Horizontal Batch Production Furnace, 44
Wilkinson, K. J., Our Roads Are Perilous, 438
Williams, Samuel, and Sons, Ltd., 7½-Ton Grabbing Crane, 856
Williams and Williams Ltd., Newsprint Mill at Kemsley, 851, 888
Williamson, James, and Partners, Finlarig Power Station, 25
Wimperis, H. E., Directing Research, 372
Wimpey, George, and Co., Ltd., Laboratory, (558)
Wolf Electric Tools, Ltd., Portable Power Point for Electric Tools, (318)
Woodall-Duckham Construction Co., Ltd., Carbonisation and Chemical Plant at Wingerworth, 623, 655
Woodhouse and Mitchell, Ltd., Turret Milling Machine ; Horizontal Boring, Facing and Milling Machine, 48
Woodnutt and Co., Ltd., Glass-Reinforced Plastic Lifeboat, 376
Woods of Colchester, Ltd., Cunard Liner "Carinthia", 199
Wootton, W. R., Calder Hall Heat Exchangers, 841
Workington Iron and Steel Co., Ltd., Industrial Films, (631)
Worthington Simpson Ltd., Newsprint Mill at Kemsley, 851, 888
Wright, W. F., Never be Short of Labour, 550
Wunsch, H. L., Machine for Determining Vibration of Precision Ball Bearings, 884

Y

Yates Plant, Ltd., Combined Continuous Backing Bar and Clamp for Cylindrical Welding, 26
Yorkshire Copper Works Ltd., Films, (494)
Young, A., Post-War Development in the Coal-Mining Industry, 918

Z

Zahnradfabrik Friedrichshafen, "Hydromedia" Transmission, 470

SUBJECTS—CLASSIFIED

A

A.C. and D.C. Conduction Pumps for Liquid Metals, L. R. Blake, 541, 572
A.T.C. and the Milton Derailment, (Leading Article, 354)
A.B.A.C.S. Nomograms, A. Giet, (Review, 653)
Abbey Works Slabbing Mill Drive, Steel Company of Wales, 98
Abberations of Thin Lenses, H. H. Emsley, (Review, 735)
Abnormal Loading, Analysis of Right Bridge Decks Subjected to, (Report, 746)
Abroad, Shipbuilding Orders for, 219
Absenteeism and Disputes, Coal Mining, 488
Absolute Calibration of the American Photoneutron Standard, 69
Absorbers, Shock, (Patent, 679)
Accelerator at Cambridge, 6,000MeV Synchroton Particle, 32
Accident, London Airport, 607
  Reports, Railway, 75
  Railway, 1856, 758
  Report, Barnes Station, 157
Accountancy, Commerce Graduates and Cost, (142)
Acheson Medal Award, R. M. Burns, (743)
Act, Restrictive Trade Practices, 206, 378
Ad Astra, (Leading Article, 389)
Adhesives for Wood, Efficiency of, (Report, 897)
Advertising Association, Promotion of Exports, (365)
Advisory Service, Technical, (422)
Aerodynamics, Solution of Problems, S. A. Urry, (Review, 369)

AERONAUTICS

Aeronautical Development in Australia, P. L. Coombes, 741
  Garden Party, 84
  History in Pictures, (Review, 781)
Air-to-Ground Television, 463
Air Strips in Use, Scottish Aviation, Ltd., (318)
  Trooping, Blackburn and General Aircraft, Ltd., 333
  Turbine Testing, General Electric Co., Ltd., (350)
Aircraft for Agricultural Duty, Edgar Percival Aircraft Ltd., (386)
  Brake Testing, Dunlop Rubber Company, 520
  Design Mathematics, Bristol Aircraft, Ltd., 39
  Engines of the World, P. H. Wilkinson, (Review, 268)
  Gas Turbines, C. W. Smith, (Review, 53)
  Gyroscopic Flight Instruments, (Review, 619)
  Materials, A. J. Murphy, 885
  Procurement, F. R. Banks, 535, (Letter, 619)
  Production Conference, 744
  Rocket Motor, (98)
Airways, 909
Annular Piston Brake, Palmer Tyre Co., Ltd. ; Goodyear Tyre and Rubber Co., Ltd., 365
Association Technique Maritime et Aeronautique, 136
Attitude Indicator, Kelvin and Hughes Ltd., 364
Australian Aeronautical Research, 278
Aviation Fuel Filters, British Petroleum Company, (374)
Bristol "Orion" Supercharged Turbo-prop, 363; "Britannia" First Flight, (286)
Britannia Air Liners, Short Brothers and Harland Ltd., 797
British "Mouse" Satellite, 153
Cement and Concrete Association, Papers on Concrete and Airfield Construction, (530)
Concrete Runway and Road Construction, 665
Executive Aircraft, Hunting Percival Aircraft, Ltd., 333
Expansion of Civil Aviation Esso A.G., 525
Farnborough and the Future, (Leading Article, 321)
Gas Turbine Developments in Aeronautics, A. W. Morley, 16
  Driven Auxiliary Electric Power Unit for Aircraft, Solar Aircraft Co., 66
  Engines, D. Napier and Son, Ltd., 333
Guided Missiles, Fairey Aviation Co., Ltd., 333
Helicopter Flotation Gear, (132)
  Progress, (178)
International Congress on Guided Missiles, 314
Jane's All The World's Aircraft, 887
Jet Airliner, de Havilland Aircraft Co., Ltd., (709)
London Airport, Sir John D'Albiac, 643
  Airport Accident, 607
Long Range Radar Installation at New York International Airport, General Electric Co., 420
Medium Range Airliner, (350)
Missile Experiment, Royal Aircraft Establishment, Aberporth, 629
Motorised Glider, Martin Neulen K.G., 454
"Pure Jet v. By-Pass", (494)
Ram Air Turbine, Plessey Co., Ltd., 365
Ramjet Engine, Bristol Aero-Engines, Ltd., 203
  Reduction of Airoraft Noise, 786
  Rocket Engines, D. Napier and Son, Ltd., 333
  Motors, S. Allen, 505
  Power Plant, 117
Rotating-wing Aircraft with Booster Rockets, Saunders-Roe, Ltd., 333
S.B.A.C. Flying Display and Exhibition, 333, 363
Saunders-Roe "Princess" Flying Boat, (Report, 771)
Short S.C.1 Research Aircraft, Short Bros. and Harland Ltd., 895
Single-Spool Turbo-Prop, (90)
Solution of Problems in Aerodynamics, S. A. Urry, (Review, 369)
Sud-Est Aviation, 209
Thrust Reversers, Rolls-Royce, Ltd., 333
Transonic Tunnel Testing Technique, H. F. Vessey, 921
Turbine Transport, Sir W. G. Armstrong Whitworth Aircraft Ltd., (494)
Turbines at Altitude, (350)
Turnbarrels, Tensions Rods and Swaged Cable-end Connections (U.N.F. Threads) for Aircraft, (B.S.I., 651)
U.S. Air Force Radar Station on Georges Bank in the Atlantic Ocean, 635
Earth Satellite Programme for the International Geophysical Year, 247
Vickers-Supermarine Type 554, "N113", 363
"Viscount Major" Flies, (214)
Wing Sections, The Design of, T. Nonweiler, (Review, 550)

Aerothermopressor, M. J. Gercke, (Letter, 305)
  Ascher H. Shapiro, (Letter, 510)

AFRICAN ENGINEERING NEWS

Bridge Conveyed by Road from Durban to Kariba Gorge, 673
Dangerous Railway Level Crossing Eliminated, Another, 672
Deep-Water Berths at Dar es Salaam, Opening, 509
Development Policy in Long Welded Rails, 134
Diesel Traction, 63
Double Lines from Capital to Capital, 673
Doubling and Improvements on the Natal Main Line, 134
Electrical Equipment for Malting Plant in Nairobi, East African Breweries, Ltd., 204
Gwelo Dam, New, 172
Hail Resistance, 172
Kariba Dam, (Leading Article, 110) ; (Letter, 196)
  Hydro-Electric Scheme on the Zambesi River, 155
Koedoespoort Mechanical Workshops, 134
Level of Vaal Hartz Weir to be Raised, 673
Liquefied Petroleum Gas in Bulk for Industries in South Africa, 748
Maritzburg's New Sewage Disposal Works, 673
Multi-Spindle Automatic Lathe, 207
National Research and Standardisation Activities, 740
New Johannesburg Station, 134
Port Shepstone Bridge, 748
Provision of Dams in the Rhodesias, 172
Que Que Water Scheme, 172
Remote Control on the S.A.R., 673
Scientific and Industrial Research in South Africa, 415
South African Railway Development, 134
Railways : General Manager's Report, 1955, 63
  Cape Development, 172
Soil Foundation Failures, 134
Superphosphate Plant for Salisbury, African Explosives and Chemical Industries (Rhodesia), Ltd., 63
Telephone Equipment Factory at Germiston, New, 63
Titanium-Oxide from Beach Sands, 776
Water Act, New, 673
  Development and Irrigation in Northern Rhodesia, (422)

Aggregates, Efficiency of Screening Operations for Roadmaking, F. A. Shergold and J. R. Hosking, 258
Agitator/Mixer Trucks for Concrete, Stothert and Pitt Ltd., 737
Agreement, Anglo-German Atomic Energy, 183
Swiss-U.S. Atomic, 562
Signing of Moselle, 827
Agreements, Reciprocal, on Social Security, (932)
  Registering Restrictive Trading, 631
  Restrictive Trading, 785
Agricultural Engineers Association, Agricultural Machinery Exports, 414

AGRICULTURAL MACHINERY

Agricultural Engineering, 147
  Machinery Exports, 414
Aircraft for Agricultural Duty, Edgar Percival Aircraft Ltd., (386)
"Almak" Multi-purpose Machine, Mitchell, Colman and Co., Ltd., 816
Automatic Pick-Up Hitch, Ford Motor Co., Ltd., 23
Baler, International Harvester Co. of Great Britain Ltd., 815
Christmas Implement Show, 1856, 796
Combine-harvester, Self-propelled, Ransomes, Sims and Jefferies Ltd., 815
Concept of Irrigation Diversion Headworks, N. V. Knight, (Letter, 304)
Congress on Irrigation and Drainage, 169
Constant Drive on Tractor, David Brown Companies, 23
Cut-offs in Modern Hydraulic Diversion Works on Alluvial Rivers, S. Leliavsky, 184, 228 ; L. Beazley, (Letter, 236)
Disc Harrows, E. H. Bentall and Co., Ltd., 816
Ditch Cleaning Machinery Competition, (784)
Dragline Ditch Cleaner, Whitlock Bros., Ltd., 815
Earthmoving Equipment, New, Marshall Sons and Co., Ltd., (295)
Fordson "Major" Tractor Refinements, Ford Motor Co., Ltd., 782
Front-Mounted Mowing Machine, Bomford Brothers, Ltd., 342
Industrial Equipment Display, 341
Irrigation Scheme in Malaya, R. L. Akers and A. I. G. Robertson, 58
  Scheme in Natal, 673
Machinery at the Smithfield Show, 782, 815
Mechanical Harvesting of Sugar Beet, British Sugar Corporation, 596
Mid-Mounted Industrial Mower, Massey-Harris-Ferguson, Ltd., 23
Modern Dewatering Methods in Irrigation Problems, S. Leliavsky, 114, 148
Motor Grader Equipped with Torque Converter, Le Tourneau-Westinghouse Company, 931
National Diploma in Agricultural Engineering, (678)
Oil-Engined Vehicles, 50
Patents, 215, 905
Power for Ploughing, D. R. Bomford, 556
Ploughing Engine, 1871, 22
  Engine, 1873, 158
  Windlass, 1874, 306
Reinforced Rubber Tyre Tracks, Massey-Harris-Ferguson, Ltd., 23
Royal Show at Newcastle-upon-Tyne, 23
Rural Ride, A., (Leading Article, 1)
Self-Propelled Combine-Harvester, Massey-Harris-Ferguson, Ltd., 23
Silver Medal Awards, H. Leverton and Co., Ltd., Atkinson's Agricultural Appliances, Ltd., T. T. Boughton and Sons, Ltd., Gascoignes (Reading), Ltd., Scottish Mechanical Light Industries, Ltd., 25
Steam Reaping Machine, 477
"Sutherland" Plough, John Fowler and Co., Ltd., 1874, 270
Thresher and Chaff Cutter, 1879, 736
Tractor, 37 B.H.P., Agricultural, Massey-Harris-Ferguson Ltd., 479
  "900" Diesel-engined, David Brown Industries Ltd., 782
  Mounted "Agrotiller", Frank Bonser and Co., Ltd., 25
  Mounted Combine Harvester, Massey-Harris-Ferguson Ltd., 815
  Mounted Spinner Broadcaster, Massey-Harris-Ferguson, Ltd., 23
  Mounted Subsoiler and Mole Drainer, Ransomes, Sims and Jefferies, Ltd., 24
Trench Digger, William Reynolds and Sons (Bedford) Ltd., 815
Truck, One-Ton, Frank Bonser and Co., Ltd., 817

"Agrotiller", Tractor-Mounted, Frank Bonser and Co., Ltd., 25
Air Against Ice, Use of Compressed, Atlas Copco, 900
Brakes, Dual, Westinghouse Brake and Signal Co., Ltd., (581)
Clean, (Leading Article, 462)
Clean, Conferences, 463
Compressed, Concrete Placer, Friedrich Wilh. Schwing G.m.b.H., 381
Compressors, Automatic Control and Warning Equipment, Holman Brothers Ltd., 824
Compressors, B. E. N. Patents Ltd., (932)
Condenser, Decade, W. H. F. Griffths, 691, 728
Conditioning and Ventilating Development, Thermotank Ltd., 516
Conditioning in Aircraft, E. W. Still, 683
Dental Drill, Compressed, Atlas Copco, 864
Engine, Hot, 1881, 886
Filter, Electrostatic, Trion Inc., 824
Filtration Material, Air Control Installations Ltd., (618)
Force, U.S., Radar Station on Georges Bank in the Atlantic Ocean, 635
to-Ground, Television, 463
Heating, Vaporheat Ltd., 671
Strips in Use, Scottish Aviation, Ltd., (318)
Trooping, Blackburn and General Aircraft, Ltd., 333
Turbine Plant, Coal-Fired Closed Cycle, Escher Wyss Ltd., 927
Turbine, Ram, Plessey Co., Ltd., 365
Turbine Testing, General Electric Co., Ltd., (350)
Aircraft, Air Conditioning, E. W. Still, 683
Brake Testing, Dunlop Rubber Company, 520
Design Mathematics, Bristol Aircraft, Ltd., 39
Engines of the World, P. H. Wilkinson, (Review, 268)
Executive, Hunting Percival Aircraft, Ltd., 333
for Agricultural Duty, Edgar Percival Aircraft Ltd., (386)
Gas-Turbine-Driven Auxiliary Electric Power Unit for, Solar Aircraft Co., 66
Gas Turbines, C. W. Smith, (Review, 53)
Gyroscopic Flight Instruments, (Review, 619)
Materials, A. J. Murphy, 885
Noise, Reduction, 786
Procurement, F. R. Banks, 535; F. R. Banks, (Letter, 619)
Production Conference, 744
Rocket Motor, (98)
with Booster Rockets, Rotating-wing, Saunders-Roe, Ltd., 333
Airliner, Biggest, (286)
Jet, de Havilland Aircraft Co., Ltd., (709)
Medium Range, (350)
Britannia, Short Brothers and Harland Ltd., 797
Air-operated Vice, Hardon Precision Engineering Co., Ltd., (630)
Airport Accident, London, 607
London, Sir John D'Albiac, 643
New York International, Long Range Radar Installation, General Electric Co., 420
Airways, 909
Alarms in Factories, Fire, 311
Albert Bridge, 119
Aldenham Bus Repair and Overhaul Works, 626
All-Fuel Industrial Boiler, Société Pradairol Poujardieu and Cie, 562
All-Weather Connectors for Aluminium-to-Copper Conductors, Kaiser Aluminium and Chemical Corporation, 347 ; J. R. Harding, (Letter, 402)
Alloy Check Valves for General Purposes, Copper, (B.S.I., 36)
High-Temperature, (286)
Gate Valves for General Purposes, Copper, (B.S.I., 36)
Steels, 302
Zinc-Aluminium-Copper Bearing, 561
Alloys, Control of Quality in the Production of Wrought Non-Ferrous Metals and, (Review, 53)
Experimental Magnesium, 621
Scaling of Cobalt-Chromium, 436
Welding of High-Nickel, Henry Wiggin and Co., Ltd., (34)
Alluvial Rivers, Cut-offs in Modern Hydraulic Diversion Works on, S. Leliavsky, 184, 228 ; L. Beazley, (Letter, 236)
Alnico, Study of Domain Structures in, (Report, 216)
Alternating Current, Stray Load Losses in, (Report, 252)
Altitude, Turbine at, (350)
Aluminium and Silicon in Hot-Rolled Steel, 778
Argon Arc Welding of, (Report, 252)
Brightening Process, Erftwerk, 174
Cable Soldering, Johnson and Phillips, Ltd., 96
Copper-Zinc Bearing Alloy, 561
for Coinage, 1856, 873
for Transmission Lines, Aluminium Union Ltd., (678)
in Pageantry, 683
Portable Bridge, Northern Aluminium Co., Ltd., 855
Road Bridge at Lunen, 711
Sheathing, Corrosheath Ltd., 487
Steels, Oxidation Resistant Silicon, (Report, 559)
to-Copper Conductors, All-Weather Connectors for, Kaiser Aluminium and Chemical Corporation, 347 ; J. R. Harding, (Letter, 402)
Amalgamator, Soap, Henry Simon, Ltd., 409
American Electrochemical Society, Acheson Medal Award, (743)

AMERICAN ENGINEERING NEWS

A.E.C. Fellowships in Nuclear Energy Technology, 791
Absolute Calibration of the American Photoneutron Standard, 69
All-Weather Connectors for Aluminium-to-Copper Conductors, Kaiser Aluminium and Chemical Corporation, 347 ; J. R. Harding, (Letter, 402)
American and other Contributions to Engineering History, 85
Atom, The Beneficient, 600
Automatic Transfer Feed Press Line for Automotive Wheel Production, Clearing Machine Corporation, 282
Automotive Developments, 31
Award of the A.S.E.M. Medal, 791
of Howard N. Potts Medal to Dr. E. H. Land, 637
Back-up-Driven Four-High Cold Strip Rolling Mill, Stanat Manufacturing Co., Inc., 601
Biological Effects of Atomic Radiation, (285)
Boiler Room, Havemeyer and Elder, 551
Burlington Power Station, New Jersey, 382
Calibration of High-Pressure Test Standards, 713
Conference on Fatigue of Metals, American Society of Mechanical Engineers, 355, 359
Construction of Research Reactor at M.I.T., U.S. Atomic Energy Commission, 31
Control of Cracks in Reinforced Concrete, 33
Dedication of Mauna Loa Observatory in Hawaii, 601
Electrical Load Measuring System for Kingsbury Thrust Bearing, Baldwin-Lima-Hamilton Corporation, 715
Engineering Societies Centre to Remain in New York, 677
Enrico Fermi Award to Dr. John von Neumann, 141
Erection of Great Egg Bay Bridge Superstructure, Bethlehem Steel Co., 317

Experimental Stress Analysis in the U.S.A. and Canada, (Report, 746)
Fabrication of Frictional Parts from "Teflon" Fibre, E. I. du Pont de Nemours and Co., 32
of Fuel Elements for Nuclear Reactors, 751, 788
Flood Control in the Columbia Basin, 349
Forward Scatter of Wireless Waves, 210
Gas-Turbine-Driven Auxiliary Electric Power Unit for Aircraft, Solar Aircraft Co., 66
High-Speed Lightweight Rolling Stock in the United States, (Leading Article, 218)
Industrial Nuclear Facilities Works in Virginia, Babcock and Wilcox Co., 139, 176
Instrument for the Calibration of Torque Wrenches, Baldwin-Lima-Hamilton Corporation, 677
Issue of Construction Permits for Large-Scale Nuclear Power Stations, U.S. Atomic Energy Commission, 175
Lightweight High-Altitude Research Missile, 753
Loan of Plutonium-Beryllium Neutron Sources to Educational Institutions, 715
Long Range Radar Installation at New York International Airport, General Electric Co., 420
Magnesium, Developments, 676
Medical Irradiation Facilities at Massachusets Institute of Technology, 600
Motor Grader Equipped with Torque Converter, Le Tourneau-Westinghouse Company, 931
National Bureau of Standards, U.S., New Site, 637
Metal Congress and Exposition, 865, 901, 929
Navy Shipbuilding Programme, 676
New Construction Programme of the Bureau of Reclamation, 249
Nuclear Propulsion Plant for Merchant Vessel, 791
Packaged Nuclear Reactors, Glenn L. Martin Company, 753
Parking in the U.S.A., H. J. H. Starks, 356, 396
Particle Accelerator for Japan, (903)
Peace in the Steel Industry, 420
Picture Transmission by the Bell Telephone System, 829
Plastic Steel Jointing and Repairing Compound, (303)
Priest Rapids Dam in Washington, Construction, 565
Production Research, 710
Research Reactor for the Battelle Memorial Institute, 565
Roll Compacting of Powdered Metals, 104
Scattering of Low-Energy Electrons, 563
Sea Water Evaporators at the Morro Bay Steam Power Station, Pacific Gas and Electric Co., 315
Semi-Conductor Resistivity Test Set, Baird Associates Inc., 317
Steam Culture Versus American Slavery, 642
Storage of Free Radicals at Low Temperature, 828
Sustained Operation of Submarine Reactor Plant, 385
Swiss U.S. Atomic Agreement, 562
Synchroton Particle Accelerator at Cambridge, 6,000MeV, 32
System of Louvres for Fish Collection, 103
Stud Welding Application in Reinforced Concrete Construction, 285
Test of Monorail Line in Texas, 421
Trouble for Toll Roads ? 175
U.S. Air Force Radar Station on Georges Bank in the Atlantic Ocean, 635
U.S. Earth Satellite Programme for the International Geophysical Year, 247
U.S. Warships—Environmental Aspects of Improved Habitability, 745
Work of the U.S. Atomic Energy Commission, 455, 491, 526

American Society of Mechanical Engineers Conference on Fatigue of Metals, 355, 359 ; Changing Nature of the Fatigue Problem, 359 ; Medal Award, 791
Society for Testing Materials, Roll Compacting of Powdered Metals, 104
Analysers, A. C. Network, (Report, 252)
Analysis, Experimental Stress, in the U.S.A. and Canada, (Report, 746)
of Right Bridge Decks Subjected to Abnormal Loading, (Report, 746)
Angled Holes with Rounded Corners, 246
Angles, Slotted, Dexion Ltd., (494)
Anglian Gas Grid, East, (165)
Anglo-German Atomic Energy Agreement, 183
Annular Piston Brake, Palmer Tyre Co., Ltd. ; Goodyear Tyre and Rubber Co., Ltd., 365
Antarctic Expedition, 683
Antarctica, Twentieth-Century Man Against, Sir Raymond Priestley, 296
Anti-Skid Braking, Goodyear Tyre and Rubber Co., Ltd., (530)
Apparatus, Lightweight Breathing, Normalair Ltd., (422)
Appliances and Workshop Tools, (Patents, 387, 423)
Lifting, and Cranes, (Patent, 423)
Application in Reinforced Concrete Construction, Stud Welding, 285
of Spring Strips to Instrument Design, (Report, 559)
Applications and Operation of Computers, E. C. Berkeley and L. Wainwright, (Review, 695)
Plastic for Engineering, T. and J. Walton, Ltd., (286)
Scientifiques de la Notion de la Regularite, Les, P. Vernotte, (Review, 21)
Apprentice Training Centre, Birlec Ltd., (458)
Training, Pre-, 721
Training, Machine Shop for, General Electric Co., Ltd., (386)
Apprentices Training School, British Oxygen Engineering Ltd., (792)
Aprons, Petrol-proof, Plysec Products Ltd., (434)
Arc-Cast Molybdenum, 621
Arc-Welded Machinery Construction in Mild Steel, (Report, 288)
Arc Welding of Aluminium, Argon, (Report, 252)
Set, Rectifier, Metropolitan-Vickers Electrical Co., Ltd., 310
Arcs, Self-Adjusting, (Report, 19)
Ardeer, Explosives Manufacturing Plant at, Imperial Chemical Industries, Ltd., 91
Are Gear Standards Wanted ?, (Leading Article, 533)
Area, European Free Trade, (Leading Article, 641), 672
European Free Trade, and British Industry, 663
Argon Arc Welding of Aluminium, (Report, 252)
"Argonarc" Welding Equipment, Automatic, British Oxygen Co., Ltd., 267
"Argonaut" Welding Head, Automatic, British Oxygen, Ltd., 59
Art of Turning and Lathe and Machine Tool History, Bibliography of the, S. G. Abell, J. Leggat and W. G. Ogden, (Review, 269)
Arteries, Traffic, in Large Towns, Leading Article, 425)
Artificial Heart and Lung Machine, New Electronic Products Ltd., 744
Artillery Experiments, 1879, 777
Asphalt, Mastic, (530)
Aspirations of School Leavers, 451
Assessment, Studies of Blast Furnace, J. M. Ridgion and A. M. Whitehouse, 800
Association des Industries de Belgique, Annual Report, 787
of British Chambers of Commerce, Economic Statistics, 631
of Consulting Engineers, Consulting Engineers and Nuclear Power Development, 571
of Engineering and Shipbuilding Draughtsmen, Stud Welding, (821)
of Engineering Distributors, Traditions of Craftsmanship, 391 ; Annual Luncheon, (638)
Technique Maritime et Aeronautique, 136
Astra, Ad, (Leading Article, 389)
Astronautical Congress, International, 481
Aswan and Suez, (Leading Article, 146)
High Dam, 112
"Atlantean" Double-Deck Bus, Leyland Motors, Ltd., 392
Atlantic, Electric Telegraph Across, 720
Ocean, U.S. Air Force Radar Station on Georges Bank, 635
Atmospheric Engine, 1880, 809
Freezing, Pulsations and Evolutionary Progression in the Long-Period Variable Stars, (Report, 131)
Atomic Agreement, Swiss-U.S., 562
Energy Agreement, Anglo-German, 183
Energy, Release of Information, 873
Energy in India, 62
Energy Inventions, (214)
Physics, Electricity and Magnetism, J. H. Fewkes and J. Yarwood, (Review, 781)
Radiation, Biological Effects of, (285)
Research Project, Winfrith Heath, (932)
Structure and the Strength of Metals, N. F. Mott, (Review, 811)
Attitude Indicator, Kelvin and Hughes Ltd., 364
Audio-Frequency Measurements, Stable Synchronous Detector for, (Report, 19)
Austenitic Stainless Steel, Hardening, 437
Steels, Chromium-Nickel, F. H. Keating, (Review, 21)

AUSTRALIAN ENGINEERING NEWS

Aeronautical Development, L. P. Coombes, 741
Research, 278
Coal Preparation Plant in Australia, Fraser and Chalmers Engineering Works, 486
Defence Research in Australia, (792)
Gas Turbines for Australia, 267
Modern Pyrite Plant Opened in South Australia, 205
Railcars in Australia, British United Traction, Ltd., (34)
Australian-United Kingdom Trade Agreement, 710

Austria, Lubricating Oil Installation for, Shell Austria A.G., 346
Authorities, Emergency Procedures for Water, (70)
Automatic "Argonarc" Welding Equipment, British Oxygen Co., Ltd., 267
"Argonaut" Welding Head, British Oxygen, Ltd., 59
Batching System, Henry Simon Ltd., 596
Cinematograph Projection, 97
Continuous, Swarf and Oil Separator, Sharples Centrifuges Ltd., 515
Control and Warming Equipment for Air Compressors, Holman Brothers Ltd., 824
Control for Power-operated Epicyclic Gearboxes, Self-Changing Gears Ltd., 470
Cycle Gear Hobbing and Shaving Machine, David Brown Machine Tool Division, 926
Digital Calculators, A. D. Booth and K. H. V. Booth, (Review, 305)
Hydraulic Copying Milling Machine, Dowding and Doll, Ltd., 44
Indexing Machine, Basic, Bristol Repetition Ltd., 450
Internal Grinder, Stuart Davis, Ltd., 10
Lathe, Multi-Spindle, 207
Moulding Equipment, Platt Malleable Castings Ltd., 668
Multi-Storey Garage, Proposal for a Fully, Griggs and Son Ltd., 607
Pick-Up Hitch, Ford Motor Co., Ltd., 23
Press, Universal, Stuart Davis, Ltd., 10
Press, Gaston E. Marbaix, Ltd., 45
Production Milling Machine, Elgar Machine Tool Co., Ltd., 47
Screw Machine, Selson Machine Tool Co., Ltd., 9
Shaper, Double-Spindle, Thomas White and Sons, Ltd., 11
Spline Hobbing Machine, Elgar Machine Tool Co., Ltd., 47
Stock Level Control on Blast Furnaces, I. Kjellman and K. Gronblad, 800
Train Graphs, L. M. Ericsson, 674
Transfer Feed Press Line for Automotive Wheel Production, Clearing Machine Corporation, 282
Triple-Draw, High-Speed Drawbench, Head Wrightson Machine Co., Ltd., 375
Automation and Labour Problems, 279
and the Consumer, 898
Economic Consequences of, Paul Einzig, (Review, 510)
Education and Training, Conference, (754)

AUTOMOBILES

"Adjusta-Wate Motomixer" for Concrete, Blaw Knox Ltd., 737
Agitator/Mixer Trucks for Concrete, Stothert and Pitt Ltd., 737
Aldenham Bus Repair and Overhaul Works, 626
Anti-Skid Braking, Goodyear Tyre and Rubber Co., Ltd., (530)
Aston Martin "Superleggera" Sports Car, David Brown Group, 552
"Atlantean" Double-Deck Bus, Leyland Motors, Ltd., 392
Automatic Control for Power-operated Epicyclic Gearboxes, Self-Changing Gears Ltd., 470
Transfer Feed Press Line for Automotive Wheel Production, Clearing Machine Corporation, 282
Transmission, Rover Co., Ltd., 585
Automobile Characteristics, (Leading Article, 720)
Industry's Outlook, 898
Transmission Factory, 133
Transporter Wagon, 64
Automotive Developments, 31
"Big Ben" Turbo-Charged Diesel Chassis, Transport Equipment (Thornycroft), Ltd., 430
Body-Building Sections, Northern Aluminium Co., Ltd., 521
"Bridgemaster" Double-Decker Bus, A.C.V. Group, 392
Britain's Neglect of Transport, (Leading Article, 2)
"Buffalo" Truck, Leyland Motors, Ltd., 392
Buick "Centurion", General Motors, 585
Bulk Oil Dispensing Vehicle, Shell Mex and B.P. Ltd., 669
Car Headlamp, Improved, 489
Centrifugal Clutch, Newton and Bennett Ltd., 470
"Claymore" Underfloor-engined Lorries, Albion Motors Ltd., 430
Commercial Motor Show, 392, 430, 470
Coventry Climax 1.5-litre Engine, 585
Double-deck Bus, "Loline", Dennis Bros. Ltd., 430
Dual Air Brakes, Westinghouse Brake and Signal Co., Ltd., (581)
Dump Truck, 8 cubic yard, Scammell Lorries Ltd., 737
Dumper, 10 cubic yard, A.E.C. Ltd., 737
Electrical Gear Change Control, C.A.V. Ltd., 470
Fluid Coupling, Self-Changing Gears Ltd., 470
Forty-Seater Coach, Leyland Motors, Ltd., 392
Forward Control 15-cwt. Vehicles, Morris Commercial Vehicles Ltd., 430
Garage, Proposal for a Fully Automatic Multi-Storey, Griggs and Son, Ltd., 607
Gearbox, "Hydramatic", Rolls-Royce Ltd., 552
German Commercial Vehicle Plant, Volkswagen, 675
History and Development of Motor Cycles, C. F. Caunter, (Review, 474)
"Hydromedia" Transmission, Zahnradfabrik Friedrichshafen, 470
International Motor Show, 552, 585
"Le Mans" Sports/Racing Car, Lotus Engineering Co., Ltd., 552
Lightweight Pendulum Starter Dynamo, Robert Bosch G.m.b.H., 787
Lockheed Transmission Hand Brake, Automotive Products Co., Ltd., 470
London Omnibus Centenary, (Leading Article, 109)
Omnibuses, 100 Years Ago, 462
Lorry Loader, Hydrauliska Industri Aktiebolaget, 633
Magnetic Dry-particle Clutch, Eaton Manufacturing Co., 585
"Manumatic Control", Borg and Beck Co., 552
Mechanised Motor Body Building, Briggs Motor Bodies Ltd., 817
Mercedes-Benz Saloon Type 190, 585
Military Vehicles Demonstration, 518
Motor-Cycle Show, 701
Motor Grader Equipped with Torque Converter, Le Tourneau-Westinghouse Company, 931
Industry and Trade Unions, (Leading Article, 217)
Vehicle Production, 135
Motorway Scheme for Stretford-Worsley Section of Manchester Outer Ring Road, 721
One Hundred Years' Omnibus Operation, London General Omnibus Co., 89
Pick-up and Delivery Vans, Volkswagen Werke, 430
"Princess IV" Car, Austin Motor Co., Ltd., 552
Rayon Cord Tyres, Courtaulds Ltd., (868)
Rear-Engined Double-Decker Bus, Leyland Motors, Ltd., 339
Redundancy in the Motor Vehicle Industry, 99
Reflections on the Motor Show, (Leading Article, 569)
Refrigerated Vehicles, British Aluminium Co., Ltd., (442)
Research on Automobile Stability, 774, 806, 845, 879
Road Transport, (Patents, 755, 793, 905)
Saloon, Mark VIII, Jaguar Motors Ltd., 552
Shock Absorbers, (Patent, 679)
Spline Rolling, Ford Motor Co., Ltd., 450
Sports Car, Two-seater, Berkeley Coachwork Ltd., 552
Saloon, P.V.444, A. B. Volvo, 585
Studebaker "Golden Hawk" Saloon, 585
"Super Constructor" Chassis, Scammell Lorries Ltd., 430
Supercharger Development, 156
"Swiftsure" 6-Ton Platform Lorry, Transport Equioment (Thornycroft) Ltd., 430
Swiss Car Imports, 281, 750
"Thames" Goods Vehicles, Ford Motor Co., Ltd., 430
Tipper, Four-Wheel Drive, Klockner-Humboldt-Deutz A.G., 430
Tractors, 10 and 12-Ton, Commer Cars Ltd., and Karrier Motors Ltd., 430
Transmission, Borg-Warner, 552
Truck, One-Ton, Frank Bonsor and Co., Ltd., 817
7-Ton, Austin Motors Ltd., 430
Twin-steer Six-wheeled Lorry, Atkinson Vehicles Ltd., 430
Tyre Drier, Grantham Electrical Engineering Co., Ltd., 671
Underground Urban Parking, 835
Urban Motor Roads, 478
Van, 25/30-cwt., Vauxhall Motors Ltd., 430
"Vanguard Sportsman", Standard Motor Co., Ltd., 552
Variable Spring Rate Rubber Suspension System, Metalastik Ltd., 470
"Volvo" Six-wheeler Truck, A.B. Volvo, 430

Automotive Developments, 31
Diesel Engines, Four, Henry Meadows, Ltd., 405
Turbo-Charger, Simms Motor Units Ltd., 858
Wheel Production, Automatic Transfer Feed Press Line for, Clearing Machine Corporation, 282
Autumn Fair at Utrecht, International 454
Auxiliary Electric Power Unit for Aircraft, Gas-Turbine-Driven, Solar Aircraft Co., 66
Availability, Research on Boiler, (118)
Average Earnings and Hours, 488
Aviation, Civil, Expansion of, Esso A.G., 525
Fuel Filters, British Petroleum Company, (374)
Sud-Est, 209
Avoid Building New Roads, How to, D. L. Reeves, (Letter, 694)
Award, Acheson Medal, R. M. Burns, (743)
City and Guilds Insignia, 683
for Post-Graduate Study, 643
of Howard N. Potts Medal to Dr. E. H. Land, 637
Royal Society, (754)
Dr. John von Neumann, Enrico Fermi, 141
Axle Drives, Individual, for Electric Locomotives, Siemens-Schuckerwerke A.G., 900
Axles, (B.S.I., 544)
Axial Blast-Furnace Blower, Sulzer Brothers Ltd., 783

B

Back-up-Driven Four-High Cold Strip Rolling Mill, Stanat Manufacturing Co., Inc., 601
Backing Bar and Clamp for Cylindrical Welding, Combined Continuous, Yates Plant, Ltd., 26
Backlash between Gear-Teeth, Calculation of, W. A. Tuplin, 190, (Letters, 438, 510, 734)
Balancing Machine for Cardan Shafts, Carl Schenck G.m.b.H., 102
Baler, International Harvester Co., of Great Britain Ltd., 815
Ball Bearings, Precision, Machine for Determining the Vibration, H. L. Wunsch, 881
and Roller Bearings, Wire Race, Eisenwerk Rothe Erde G.m.b.H., 525
Band Resaw with Hydraulically-Operated Feed, Stenners of Tiverton Ltd., 591
Bandsawing Machine, Startrite Engineering Co., Ltd., 708
Banker's Strong Room, 370
Bar and Clamp for Cylindrical Welding, Combined Continuous Backing, Yates Plant, Ltd., 26
Barbican Scheme, Rejection of the New, 323
Bark-Stained Timber, Paper from, Swedish Cellulose Company, 381
Barnes Station Accident Report, 157
Barrier Preparation, Silicone, Lloyd-Hamol Ltd., (602)
Barry and Newport Docks, Improvement Schemes, 797
Bars, Fire, Firth-Vickers Stainless Steels, Ltd., (837)
and Forgings, Steel Billets, Blooms, (B.S.I., 341)
Basic Automatic Indexing Machine, Bristol Repetition Ltd., 450
Materials' Prices, 747
Mathematics for Science and Engineering, P. G. Andres, H. J. Miser and H. Reingold, (Review, 122)
Flood Control in the Columbia, 349
Batch Counting Equipment, Sutton Coldfield Electrical Engineers, 709
Production Furnace, Horizontal, Wild-Barfield Electric Furnaces, Ltd., 44
Batching System, Automatic, Henry Simon Ltd., 596
Battelle Memorial Institute, Research Reactor, 565
Batteries, Signalling Lamp, (34)
Battery, St. Marie, 1879, 777
Beach Sands, Titanium Oxide from, 776
B.E.A.M.A. and the International Exhibition, (350)
Beams, Vibrating, Myklestad's Method for Non-Uniform, R. E. D. Bishop, 838, 874
Bearing Alloy, Zinc-Aluminium-Copper, 561
Bearings, Heavy Tapered Roller, Factory, British Timken Ltd., 819
Kingsbury Thrust, Electrical Measuring System for, Baldwin-Lima-Hamilton Corporation, 715
Precision Ball, Machine for Determining the Vibration, H. L. Wunsch, 881
and Supports, (Patents, 35, 143, 933)
Wire Race Ball and Roller, Eisenwerk Rothe Erde G.m.b.H., 525
Beet, Sugar, Mechanical Harvesting, British Sugar Corporation, 596
Bellows, Flexible, P.T.F.E., Crane Packing Ltd., (530)

Belt Conveying, Sutcliffe's Manual, 887
Conveyor Design, Handbook, (Review, 269)
Drive, Self-Tensioning, Leder and Cie Ltd., 675
Grinder, Wet, Taylor Tools and Supplies Ltd., (638)
Belvedere Power Station, Two 120MW Sets at, Central Electricity Authority, (178)
Bender, Cold Hydraulic Ship Frame, Scottish Machine Tool Corporation Ltd., 520
Bending Machine for Conduit Tubes, Small, General Electric Co., Ltd., (792)
Bent Reinforcing Rods, Straightening, 599
Berths, Deep-Water, at Dar es Salaam, Opening, 509
Beryllium Copper, 923
Bessemer Centenary, 120 ; Exhibition, (678)
Bessemer, Steelmaking Since, Sir Charles Goodeve, 329
Bessemer's Process, 290
Bestimmung von Schichtgrenzen eines tertiaren Plateaus mit Quartarbedeckung, Geoelektrische, M. Weber, (Review, 305)
Bezugsquellan fur Normgerechte Erzeugnisse, W. Porstmann, (Review, 123)
Bibliography of the Art of Turning and Lathe and Machine Tool History, S. G. Abell, J. Leggat and W. G. Ogden, (Review, 269)
Bicentenary of John Loudon MacAdam, 1756-1836, 395
of Voigtlander, 525
Biggest Airliner, (286)
Billets, Blooms, Bars and Forgings, Steel, (B.S.I., 341)
Steel, Continuous Casting, United Steel Companies Ltd., 374
Biological Effects of Atomic Radiation, (285)
Bituminous Coal Dusts, Explosion Danger of, W. Morsbach, (Review, 21)
Roads Development Group, 710
Blade, Turbine Nozzle, Effusion Cooled, (Report, 897)
Blades, Conditions of Failure in some Turbine Diaphragm, K. H. Khalil, 78
Turbine, Large-Capacity Projector for Inspecting, Optical Measuring Tools Ltd., 746
Blame, Sharing the, 399
Blast Cleaning Equipment for Large Plates, Vacu-Blast, Ltd., 169
Furnace Assessment, Studies, J. M. Ridgion and A. M. Whitehouse, 800
Furnace Blower, Axial, Sulzer Brothers Ltd., 783
Furnace-Hearth, Large, Appleby-Frodingham Steel Co., (286)
Furnace, Measurement of Gas Transit Times, T. W. Johnson, 800
Furnaces, Automatic Stock Level Control, I. Kjellman and K. Gronblad, 800
Blasting Holes, Trench, Twin-Drill Rigs, Climax Rock Drill and Engineering Works Ltd., (702)
Blending and Bottling Plant, John Walker and Sons, Ltd., 742
Fibre, and Carpet Plant, Petmar Industries Ltd., 705
Blind Fastener, Aviation Developments Ltd., 365
Blisters on Steel, Surface, 121
Block Signalling Instrument of Unit Construction, 410
Blocks, Tipping Concrete, 88
Blooms, Bars and Forgings, Steel Billets, (B.S.I., 341)
Blower, Axial Blast-Furnace, Sulzer Brothers Ltd., 783
Blowers and Compressors, (Patent, 144)
Board Washers, Wood Pulp, Tresises Drip Mat Co., (792)
of Works, Houseless, 534
Boat, Saunders-Roe "Princess" Flying, (Report, 771)
and Ship Builder, Annual Review, 1956, 849
Show, National, (932)
Body Building, Mechanised Motor, Briggs Motor Bodies Ltd., 817
Building Sections, Northern Aluminium Co., Ltd., 521

BOILERS

All-Fuel Industrial Boiler, Societe Pradairol Poujardieu and Cie, 562
Boiler Room, Havemeyer and Elder, 551
Dingle Bank Boiler Installation, Shell-Mex and B.P., Ltd., 132
Research on Boiler Availability, (118)
Revised Course in Boilermaker's Work, (70)

Bolting, Loading in Bracket, J. E. Keown, (Letter, 86)
Bombay University, Turret Clock, 477
Bonn Radio Telescope, 749
Books Received, 21, 53, 87, 123, 159, 197, 237, 269, 305, 336, 369, 403, 475, 511, 550, 583, 653, 695, 735, 781, 811, 849, 887
Booster Rockets, Rotating-wing Aircraft with, Saunders-Roe, Ltd., 333
Boring, Facing and Milling Machine, Horizontal, Woodhouse and Mitchell, Ltd., 48
Machine, Horizontal Toolroom, H. W. Kearns and Co., Ltd., 7
Machine, Jig, Stedall Machine Tool Co., Ltd., 46
Machine, Vertical Fine, Dowding and Doll, Ltd., 44
and Turning Mill, Vertical, Selson Machine Tool Co., Ltd., 10
Borrowash, East Midlands, By-Pass Road at, (203)
Bottling and Blending Plant, John Walker and Sons, Ltd., 742
Boulton, Watt and Murdock, In Commemoration of, (Leading Article, 390)
Boundary Lubrication, United Lubricants, Ltd., 239
Bracket Bolting, Loading in, J. E. Keown, (Letter, 86)
Bradwell Nuclear Power Station, Central Electricity Authority, 98
Brake, Annular Piston, Goodyear Tyre and Rubber Co., Ltd. ; Palmer Tyre Co., Ltd., 365
Lockheed Transmission Hand, Automotive Products Co., Ltd., 470
Motor-Driven Swing-Beam Press, F. J. Edwards, Ltd., 8
Testing, Aircraft, Dunlop Rubber Company, 520
Brakes, Dual Air, Westinghouse Brake and Signal Co., Ltd., (581)
Braking, Anti-Skid, Goodyear Tyre and Rubber Co., Ltd., (530)
Branch Line, Modified Diesel Railcar for a, (350)
Brass Strip, Leaded, for Use in Clocks and Watches, (B.S.I., 861)
Wire for Springs, Round Hard Drawn, (B.S.I., 861)
Break-Away Clutch, Tiltman Langley Laboratories, 629
Breaker, Miniature Circuit, British Central Electrical Co., Ltd., (458)
Breathing Apparatus, Lightweight, Normalair Ltd., (422)
Machines, Mechanical, G. T. Smith-Clarke, 876, 911
Brennstoffnormen, Mineralol-und, (Report, 352)
Bridge Decks, Right, Subjected to Abnormal Loading, Analysis, (Report, 746)
"Bridgemaster" Double-Decker Bus, A.C.V. Group, 392

BRIDGES

Albert Bridge, 119
Aluminium Portable Bridge, Northern Aluminium Co., Ltd., 855
Road Bridge at Lunen, 711
Bridge Conveyed by Road from Durban to Kariba Gorge, 673
over the River Wear, Sunderland, 1880, 850
over the Severn, 370
Erection of Great Egg Bay Bridge Superstructure, Bethlehem Steel Co., 317
Fitzroy Bridge, Rockhampton, 1881, 925
Ganga Bridge, The, 62
Langstone Bridge, Hampshire, 377
Notch Ductile Steel for Bridges, (B.S.I., 195)
Port Shepstone Bridge, 748
Proposed Raising of a Canadian Bridge, 651
Railway Bridge, 404
Reconstruction of Railway Bridge, North-Eastern Region of British Railways, (92)
Rhine Bridge, Mannheim-Ludwigshafen, Demag A.G., 174
Rolling Bridge, 235
S.A.R. Cape Development, 172
Tay Bridge, 1879, 809
Tower Bridge, 622
Westminster, New Bridge, 112, 427

Bridging the Years, C. M. Norrie, (Review, 811)
Brightening Process, Aluminium, Erftwerk, 174
Bristol "Orion" Supercharged Turbo-prop, 363
Steamship Owners' Association, Nuclear Power for Ships, 759
Britain's Neglect of Transport, (Leading Article, 2)
Britannia Air Liners, Short Brothers and Harland Ltd., 797
British Association for the Advancement of Science, Oil and Industry, 332 ; Physics and Technology, Sir George Thomson, 297 ; Sheffield Meeting, 291 ; Steelmaking Since Bessemer, Sir Charles Goodeve, 329 ; Twentieth-Century Man Against Antartica, Sir Raymond Priestley, 296
Association for Commercial and Industrial Education, Automation, Education and Training, (754)
Caprotti Valve Gear, Standard Class "5" Locomotives, 708
Civil Engineering Contracting Industry : Illustrated History, (Review, 21)
Coal Utilisation Research Association, Report for the Year 1955
Defence Policy, Reappraisal of, (Leading Article, 38)
Electrical and Allied Manufacturers' Association, International Exhibition, (350)
Engineers' Association, European Co-operation, 873
Engineers Visit to German Steel Works, 928
Engineers Visit to Russian Hydro-Electric Schemes, 535
Firms, Overseas Constructional Work, 451
Gear Manufacturers' Association, Tooth Gearing and Research, S. A. Couling, 915
German Export Competition, 202
Germanium Power Rectifier Installation in France, (286)
Industries Fair, 1957, 785
Industry and a European Free Trade Area, 663
Institute of Management, Management Education, 710 ; National Management Conference, 451
Internal Combustion Engine Research Association, Annual Report, (480)
Interplanetary Society, British "Mouse" Satellite, 153
Iron and Steel Federation, Industrial Films, (631)
Iron and Steel Research Association, Open Days, (106) ; Work of, (Leading Article, 322)
Locomotive Works, Diesel Engine Manufacture at a, North British Locomotive Co., Ltd., 411
"Mouse" Satellite, 153
Nuclear Energy Conference, Symposium on Calder Works, 468
Railways, Joint Consultation on, 279 ; Motive Power for, (Leading Article, 254) ; in Action, O.S. Nock, (Review, 848) ; Development Engineers for, 835 ; and the Oil Shortage, 785
Research into Radio Propagation by Tropospheric Scatter, Marconi's Wireless Telegraph Co., Ltd., 595
Road Federation, Road Statistics, 535 ; Urban Motor Roads, 440
Shipping, Chamber of Shipping, Annual Dinner, 560
Society for Research in Agricultural Engineering, Agricultural Engineering, 147
Standards for Gears, Whither ?, H. E. Merritt, 547
Standards Institution, Axles, 544 ; Exports and Standards, 522 ; Glossary of Terms for Concrete and Reinforced Concrete, 805 ; Glossary of Terms Used in Industrial High-Frequence Induction and Dielectric Heating, 544 ; Grey Iron Castings, 921 ; Leaded Brass Strip for Use in Clocks and Watches, 861 ; Methods of Sampling Water Used in Industry, 776 ; Methods of Testing Vulcanised Rubber, 921 ; Paper-Covered Rectangular Copper Conductors for Transformer Windings, 651 ; Round Hard Drawn Brass Wire for Springs, 861 ; Rubber Tubing and Bungs for Laboratory Use, 805 ; Steel Railway Sleepers, 895 ; Summary Sheets of British Standards, 135 ; Turnbarrels, Tension Rods and Swaged Cable-end Connections (U.N.F. Threads) for Aircraft, 651 ; Wire-Armoured Paper-Insulated Cables for Use in Mines, 544 ; Summary Sheets of, 135
Steel Home Demand, 170
Swedish Chamber of Commerce, (386)
Warship, Weapon Mounted in, 198
Brittle Fracture of Steel Forgings, 778
Fracture of Steels, Notes on, Sulzer Brothers, 443
Broadcaster, Tractor-Mounted Spinner, Massey-Harris-Ferguson, Ltd., 23
Broad-Strip Rolling Mill, Erection of, Hahnsche Werke A.G., 102
Brochures and Catalogues, 36, 72, 108, 144, 180, 252, 288, 320, 352, 460, 568, 604, 640, 756, 870, 906
Brussels Universal Exhibition, 1958, 750
Bucket Steam Trap, Inverted, Lancaster and Tonge Ltd., 487
"Buffalo" Truck, Leyland Motors, Ltd., 392
Buffet Cars, Experimental B.R. Restaurant, (178)
Building in Lancashire, Diesel and Electric Locomotive, English Electric Co., Ltd., 413
Mechanised Motor Body, Briggs Motor Bodies Ltd., 817
New Roads, How to Avoid, D. L. Reeves, (Letter, 694) ; G. Lyon, (Letter, 810)
of 100ft. Span, Prefabricated Storage, Taylor Woodrow (Building Exports) Ltd., 517
Programme, Naval, Plea for, (Leading Article, 570)
Projects, University, 759
Research Notes, Canadian, (386)
Buildings, Design of Multi-Storey Steel Frame, (Report, 252)
Bulk Oil Dispensing Vehicle, Shell Mex and B.P. Ltd., 669
Bungs and Rubber Tubing for Laboratory Use, (B.S.I., 805)
Burlington Power Station, New Jersey, 382
Burners, High-Energy Spark Ignition Equipment for Oil, Foster Transformers, Ltd., 310
and Sprayers, (Patent, 639)
Burning Appliances, Kerosene, Shell Petroleum Co., Ltd., (458)
Bus, "Atlantean" Double-Deck, Leyland Motors, Ltd., 392
"Bridgemaster" Double-Decker, A.C.V. Group, 392
"Loline" Double-deck, Dennis Bros., Ltd., 430
Repair and Overhaul Works, Aldenham, 626
Rear-Engined Double-Decker, Leyland Motors, Ltd., 339
By-Pass, Medway Towns, (422)
Proposed Route of Doncaster, 75
Road at Borrowash, East Midlands, (203)
By-Way in Engineering Design, A, (Leading Article, 253)

C

Cabinet, Low-Refrigeration Test, Lightfoot Refrigeration Co., Ltd., (286)
Cable, Channel, J. H. M. Sykes, 433
138kV Submarine, for Vancouver Island, 589
Project, Cross-Channel, 323
Soldering, Aluminium, Johnson and Phillips, Ltd., 96
Cables, Development of Power, P. V. Hunter and J. T. Hazell, (Review, 236)
for Use in Mines, Wire Armoured Paper-Insulated, (B.S.I., 544)
Cadmium-Copper Stranded Conductors for Overhead Electric Traction Systems, Copper and, (B.S.I., 108)
Calcul des Couches Limites Laminaire et Turbulente en Ecoulement Compressible, Nouvelle Methode Approachee, (Report, 388)
Calculation of Backlash between Gear-Teeth, W. A. Tuplin, 190 ; H. E. Merritt, (Letter, 438) ; W. A. Tuplin, (Letter, 510) ; A. M. Gunner, (Letter, 734)
Calculations, Engineering Science and, W. E. Fisher, (Review, 887)
Practical Solution of Torsional Vibration Problems : Vol. I : Frequency, W. Ker Wilson, (Review, 52)
Storm Water Storage, B. A. Copas, 684
Calculator, Fuel Oil, Fina Petroleum Products Ltd., (602)
Calculators, Automatic Digital, A. D. Booth and K. H. V. Booth, (Review, 305)
Calder Hall, Kenneth Jay, (Review, 583)
Heat Exchangers, 841
Out of, (Leading Article, 871)
Power Station, 464 (Colour Suppt.), 500, 537
No. 1 Reactor, Commissioning, Gordon Brown and K. L. Stretch, 722, 760
Reactor, Place of, in Nuclear Power Generation, Sir Christopher Hinton, 726
Reactors, B.N.E.C. Papers, 771, 802
Significance of, (Leading Article, 461)
Welding at, P. D. Tatton-Brown (Letter, 924)
Works, Symposium, British Nuclear Energy Conference, 468
Calibration of the American Photoneutron Standard, Absolute, 69
of High-Pressure Test Standards, 713
of Secondary Standards of Light, 909
of Torque Wrenches, Instrument for, Baldwin-Lima-Hamilton Corporation, 677
Camber on Large Rolls, Optical Instrument for Measuring, P. W. Harrison, 327
Cambridge, 6,000MeV Synchroton Particle Accelerator at, 32

CANADIAN ENGINEERING NEWS

Hydro-Electric Power in Ontario, 535
Oil-Engined Vehicles, 50
Proposed Raising of a Canadian Bridge, 651
Structural Engineering Firm's Expansion Programme, Dominion Bridge Co., Ltd., (669)

CANALS

Aswan and Suez, (Leading Article, 146)
Building Research Notes, (386)
Clearing the Suez Canal, 837 ; (Leading Article, 872)
Cromwell Weir on the River Trent, Reconstruction, (494)
Cut-offs in Modern Hydraulic Diversion Works on Alluvial Rivers, S. Leliavsky, 184, 228 ; L. Beazley, (Letter, 236)
Manchester Ship Canal Tug "Sabre", P. K. Harris (Shipbuilders), Ltd., 342
Suez Canal, 218

Canoe, Folding, 736
Canonbie Coalfield, National Coal Board, (94)
Cantilevered Stand Roof, W. S. Atkins and Partners, 27
Cape Development, S.A.R., 172
Capital Expenditure, 672
Expenditure, Estimates of, 378
Expenditure in 4956, 61
Investment, Trends in, 206
Car Headlamp, Improved, 489
Imports, Swiss, 281, 750
Sleeper Expresses on French Railways, (657)
Steam Tramway, 158
Caravan, Folding, United British Caravan Co., Ltd., 27
Carbide, Silicon, 779
Tipped Tool Sharpening Machine, Tungsten, George Cohen, Sons and Co., Ltd., 10
Tool Grinding Machine, Stedall Machine Tool Co., Ltd., 46
Carbonisation and Chemical Plant at Wingerworth, 623, 655
Carburetters, Updraught, Villiers Engineering Co., Ltd., 596
Carburising, Continuous, E.N.V. Engineering Co., Ltd., 308
Cardan Shafts, Balancing Machine for, Carl Schenck G.m.b.H., 102
Career in Construction, John Laing and Son, Ltd., (904)
Careers for Engineers in Railway Service, (830)
Carillon Machine, 370
"Carinthia", Cunard Liner, John Brown and Co. (Clydebank), Ltd., 199
Carpet and Fibre Blending Plant, Petmar Industries Ltd., 705
Carriage, Hydro-Pneumatic, 404
Carrington Power Station, Central Electricity Authority, 124
Cars, Experimental B.R. Restaurant Buffet, (178)
Casting of Steel Billets, Continuous, United Steel Companies Ltd., 374
Castings, Cleaning Process for, Castingite, Ltd., 25
Grey Iron, (B.S.I., 921)
Machining of Turbine, 208
Production, Iron, 311 ; 785
Catalogues and Brochures, 36, 72, 108, 144, 180, 252, 288, 320, 352, 460, 568, 604, 640, 756, 870, 906
Catalyst, Oxidation, Oxy-Catalyst Sales Ltd., 743
Cathedral, Great Clock for, 51
Cationic and Nonionic Chemical Plant, Hess Products, Ltd., 131
Cavitation in Hydrodynamics, (Review, 582)
Cell, High-Pressure Hydrogen-Oxygen Fuel, F. T. Bacon and J. S. Forrest, 93
Cells, P. V. C. Insulation and Sheath of Electric, (B.S.I., 72)
Cement and Concrete Association, Civil Engineering Lecture Courses, (602) ; Concrete Runway and Road Construction, 665 ; Italian Concrete Structures, (422) ; Papers on Concrete Road and Airfield Construction, (530) ; Single-Storey Concrete Factories, (410)
Cement Silo, Eonit Engineering Co., Ltd., 737
Cenis Tunnel, Mont, 22
Tunnel, Whymper and the Mont, T. L. Watkins, (Letter, 86)
Centenarians, 254
Centenary, Bessemer, 120 ; Exhibition, (678)
Koninklijke Nederlandsche Stoomboot Maatschappij, 562
London Omnibus, (Leading Article, 109)
Manchester Association of Engineers, 509
Central Engineering Establishment, National Coal Board, 893
India, Warora Colliery, 584
Centre, Apprentice Training, Birlec Ltd., (458)
Coke Research, 710
Engineering Societies, to Remain in New York, 677
Swedish Forestry Research, 246
Timber Research, Timber Development Association, Ltd., 39
Centrifugal Clutch, Newton and Bennett Ltd., 470
Pumping Set, Sigmund Pumps Ltd., 449
C.E.R.N. European Proton Synchrotron, 243
Chaff Cutter and Thresher, 736
Chain, North Scottish Navigator, 6
Chamber of Commerce, British-Swedish, (386)
Chambers, Combustion, Performance Criteria of Gas-Turbine, D. B. Spalding, (Review, 550)
Changes in Frequency, Real, Test for Detecting, Stafford Beer, 798
in Wages Rates, 28, 825
Changing in Industry, Necessity for Job, 135
Nature of the Fatigue Problem, H. J. Gough, 359
Channel Cable, J. H. M. Sykes, 433
Chapel Cross Nuclear Power Station, Constructional Progress at, Mitchell Construction Co., 94
Chapelon "Pacifics", Rebuilt, Edward H. Livesey, (Letter, 734)
Characteristics, Automobile, (Leading Article, 720)

Characteristics of Free Piston Compressor, Performance, B. W. Martin, 4
of the Slabbing Mill, Time, H. G. Jones, D. T. Steer and P. D. Dickerson, 765
Chart for Steam, Total Heat/Entropy, Wright-Baker, (Review, 123)
Check Valves for General Purposes, Copper Alloy, (B.S.I., 36)
Chemical and Carbonisation Plant at Wingerworth, 623, 655
Industry, German, 928
Plant, Cationic and Nonionic, Hess Products, Ltd., 131
Research Laboratory, Open Days, 599
Rubber and Plastics Exhibition at Paris, 863
Science, Convention of, 209
Christmas Lecture, Institution of Electrical Engineers, 759
Chromium, High-Purity, 303
Nickel Austenitic Steels, F. H. Keating, (Review, 21)
Chuck for Screwed Shank Tools, B.S.A. Tools Ltd., 709
Chucking Lathe, Vertical Spindle, Charles Churchill and Co., Ltd., 43
Cinematograph Projection, Automatic, 97
Circuit Breaker, Miniature, British Central Electrical Co., Ltd., (458)
Circular Fire-Grate, 306
Form Tool Grinding Machine, A. A. Jones and Shipman Ltd., 861
Circulating Pumps, High-Temperature, Rhodes, Brydon and Youatt, Ltd., 203
City and Guilds Insignia Award, 683
London Institute, Conference on Technical Illustration, (716)
Civil Aviation, Expansion of, Esso A.G., 525
Engineering Contracting Industry : Illustrated History, British, (Review, 21)
Engineering Firm's Laboratory, George Wimpey and Co., Ltd., (558)
Engineering Lecture Courses, (602)
Engineering, Patents, 71, 252, 423
Engineering Studies, Portuguese, (602)
Engineers, Surveying for, Pi Kissam, (Review, 336)
Engineering Works, Conditions of Contract in Overseas, (422)
Service, Annual Report, 522
Claims, Wage, 631
Clamp for Cylindrical Welding, Combined Continuous Backing Bar and, Yates Plant, Ltd., 26
Machine, Headland Engineering Developments Ltd., (830)
Classification of Insulating Materials, (B.S.I., 320)
Clean Air, (Leading Article, 462)
Air, Conferences, 463
Cleaner, Dragline Ditch, Whitlock Bros., Ltd., 815
Cleaning and Electro-Plating Factory, Metal, Electro-Chemical Engineering Co., Ltd., 97
Equipment for Large Plates, Blast, Vacu-Blast, Ltd., 169
Machinery Competition, Ditch, (784)
Process for Castings, Castingite, Ltd., 25
Shot, for Heat Exchanger Surfaces, Keith Blackman Ltd., (678)
Cleansing Plant, Ultrasonic, Kerry Group, 40
Clearing the Suez Canal, 837 ; (Leading Article, 872)
Cleavage Strength of Steel, T. M. Noren, (904)
Cleopatra's Needle, 622
Clock for Bombay University, Turret, 477
for Cathedral, Great, 51
Exhibition, Pendulum, 721
Improved Turret, 337
and Watch Escapements, W. J. Gazeley, (Review, 368)
Clocks and Watches, Leaded Brass Strip for Use in, (B.S.I., 861)
Closed-Cycle Coal-Fired Air Turbine Plant, Escher Wyss Ltd., 927
Clutch, Break-away, Tiltman Langley Laboratories, 629
Centrifugal, Newton and Bennett Ltd., 470
Clyde Shipyard Strike, 343, 414
Steamship, Lord of the Isles, 584
Coach, Forty-Seater, Leyland Motors, Ltd., 392

COAL AND COKE

Canonbie Coalfield, National Coal Board, (94)
Carbonisation and Chemical Plant at Wingerworth, 623, 655
Coal Consumption, 99
Cutter Loader, Hartley Bank Colliery, 823
Fired Closed-Cycle Air Turbine Plant, Escher Wyss Ltd., 927
Output and Stocks, 747
Preparation Plant in South Wales, 909
Production, 898
Statistics, National Coal Board, 391
Tar as Fuel for Gas Turbine, Crittall Manufacturing Co., Ltd., 153
Coke Research Centre, 710
Disputes and Absenteeism, Coal Mining, 488
Drainage and Use of Methane from Coalfields, (Review, 269)
European Coal and Steel Community, 598, 632
Explosion Danger of Bituminous Coal Dusts, W. Morsbach, (Review, 21)
Opencast Coal Production, 219
Post-War Development in the Coal Mining Industry, A. Young, H. A. Longden and B. L. Metcalf, 918
Preparation Plant in Australia, Fraser and Chalmers Engineering Works, 486
Reports on Coal Mines, 570
Statistics, 909
Towards European Integration : First Results for Coal and Steel, (Report, 746)
Underground Gasification of Coal, 873
Warora Colliery, Central India, 584
Wet Processes for Combating Fire-Damp and Coal Dust Explosions, H. Schultze-Rhonhof, (Review, 159)

Coalfield, Canonbie, National Coal Board, (94)
Coalfields, Drainage and Use of Methane from, (Review, 269)
Coating, Plastic, of Metallic Articles, F. W. Berk and Co., Ltd., 823
Surface, Protection by, Norton Grinding Wheel Co., Ltd., 822
Cobalt-Chromium Alloys, Scaling, 436
Sulphur Embrittlement of, 120
Therapy Unit, Radioactive, 42
Cogging Engines, 1880, 850
Coinage, Aluminium, 1856, 873
Coke Research Centre, 710
Colcutt, Too Much Talk and, (Leading Article, 181)
Cold Hydraulic Ship Frame Bender, Scottish Machine Tool Corporation, 520
Mill at Velindre, Electrical Drive for Five-Stand Tandem, Davy and United Engineering Co., Ltd., 661
Rolling Mill, Multi-Roll, Scholemann Aktiengesellschaft, 246
Sawing Machine, Heavy-Duty High-Speed, Clifton and Baird, Ltd., 47
Strip Forming Machine, Heenan and Froude, Ltd., 48
Strip Rolling Mill, Back-up-Driven Four-High, Stanat Manufacturing Co., Inc., 601
Collapse Load, Effect of Distortion of a Stiff-Jointed Frame on its Plastic, J. W. H. King and D. E. Jenkins, (Letter, 20) ; M. R. Horne, (Letter, 87)
Collapsible Packing Containers, Postbox G.m.b.H., 419
Collection, System of Louvres for Fish, 103
College, Imperial, Further Expansion, (Leading Article, 533)
Colleges, Technical, and Industry, 463
Colliery, Warora, Central India, 584
Colston Hall Organ Tuning, Sound System for, General Electric Co., Ltd., 241
Colour Densitometer, Kodak Ltd., 671
Columbia Basin, Flood Control in the, 349
Combating Fire-Damp and Coal Dust Explosions, Wet Processes for, H. Schultze-Rhonhof, (Review, 159)
Combination Spectra in Long-Period Variable Stars, (Report, 288)
Combine-Harvester, Self-Propelled, Massey-Harris-Ferguson, Ltd., 23
Self-propelled, Ransomes, Sims and Jefferies, Ltd., 815
Tractor-mounted, Massey-Harris-Ferguson Ltd., 815
Combined Continuous Backing Bar and Clamp for Cylindrical Welding, Yates Plant, Ltd., 26
Hydraulic Tailstock and Wheel Truing Equipment for Cylindrical Grinder, John Lund, Ltd., 9
Stress Creep Fracture of a Commercial Copper at 250 Deg. Cent., A. E. Johnson, J. Henderson and V. D. Mathur, 261, 299
Chambers, Performance Criteria of Gas-Turbine, D. B. Spalding, (Review, 550)
Combustion Engines, Internal, Patents ; 71, 216, 251, 287, 319, 351, 387
Problems, Selected, 11 : Transport Phenomena ; Ignition ; Altitude Behaviour and Scaling of Aero Engines, (Review, 583)
Commemoration of Boulton, Watt and Murdock, In, (Leading Article, 390)
Commerce Graduates and Cost Accountancy, (142)
Commercial Copper at 250 Deg. Cent., Combined Stress Creep Fracture of a, A. E. Johnson, J. Henderson and V. D. Mathur, 261, 299
Motor Show, 392, 430, 470
Vehicle Plant, German, Volkswagen, 675
Commissioning of Calder Hall No. 1 Reactor, Gordon Brown and K. L. Stretch, 722, 760
Common European Market, (Leading Article, 497)
Commonwealth Standards Conference, 909
Communities, Human Problems of Industrial, 39
Compacting of Powdered Metals, Roll, 104
Competition, British and German Export, 202
Ditch Cleaning Machinery, (784)
Compound Corliss Engine, 512
Plastic Steel Jointing and Repairing, (303)
Compressed Air Against Ice, Use of, Atlas Copco, 900
Air Concrete Placer, Friedrich Wilh Schwing G.m.b.H., 381
Air Dental Drill, Atlas Copco, 864
Compression Gas Engines, Diesel and High, Edgar J. Kates, (Review, 53)
Compressor, Non-Magnetic, Hymatic Engineering Co., Ltd., (241)
Performance Characteristics of Free Piston, B. W. Martin, 4
Compressors, Air, B. E. N. Patents Ltd., (932)
Air, Automatic Control and Warning Equipment, Holman Brothers Ltd., 824
Blowers and, (Patent, 144)
Computer Centre, Opening of European, 634
Digital, for Research, (422)
Electronic, T. E. Ivall, (Review, 924)
Factory for Electronic Digital, Ferranti Ltd., 593
Their Operation and Applications, E. C. Berkeley and L. Wainwright, (Review, 695)
Concept of Irrigation Diversion Headworks, N. V. Knight, (Letter, 304)
Conception de la Resistance des Materiaux, Nouvelle, A. Couard, (Review, 122)
Conclusions from Road Research, (Leading Article, 182)

CONCRETE

"Adjusta-Wate Motomixer" for Concrete, Blaw Knox Ltd., 737
Agitator/Mixer Trucks for Concrete, Stothert and Pitt Ltd., 737
Cement and Concrete Association, Papers on Concrete Road and Airfield Construction, (530)
Silo, Eonit Engineering Co., Ltd., 737
Compressed Air Concrete Placer, Friedrich Wilh. Schwing, G.m.b.H., 381
Concrete Runway and Road Construction, 665
Control of Cracks in Reinforced Concrete, 33
Glossary of Terms for Concrete and Reinforced Concrete, (B.S.I., 805)
Hydraulic Self-Aligning Seating, A. C. Carter, 232
Italian Concrete Structures, (422)
Measurements in Concrete Structures, V.D.I., 381
Single-Storey Concrete Factories, (410)
Stud Welding Application in Reinforced Concrete Construction, 285
Theory of Prestressed Concrete Design ; Statically Determinate Structures, Henry J. Cowan, (Review, 475)
Tipping Concrete Blocks, 88
Vibrated Concrete, 323

Condenser, Decade Air, W. H. F. Griffiths, 691, 728
Rubbing Leathers, Dimensions of, (B.S.I., 36)
Condensing Engine, Sulzer Brothers, 654
Conditioning, Air, in Aircraft, E. W. Still, 683
Conditions of Contract in Overseas Civil Engineering Works, (422)
of Failure in some Turbine Diaphragm Blades, K. H. Khalil, 78
Conduction Pumps, A.C. and D.C., for Liquid Metals, L. R. Blake, 541, 572
Conductors, All-Weather Connectors for Aluminium-to-Copper, Kaiser Aluminium and Chemical Corporation, 347 ; J. R. Harding, (Letter, 402)
for Overhead Electric Traction Systems, Copper and Cadmium-Copper Stranded, (B.S.I., 108)
Conduit and Conduit Fittings, Non-Ferrous, (B.S.I., 72)
Tubes, Small Bending Machine for, General Electric Co., Ltd., (792)
Conference, Aircraft Production, 744
Automation, Education and Training, (754)
Commonwealth Standards, 909
on Fatigue of Metals, 355, 359
Fifth World Power, 13
German Tin, 863
at Harwell, Reactor, U.K. Atomic Energy Authority, 291, 805
National Management, 451
Nuclear Energy Trade Associations', 797
on Technical Illustration, 716, 797
On Urban Motorways, 394
Conferences on Clean Air, 463
Congress and Exhibition, Public Works and Municipal Services, 643
and Exposition, National Metal, 865, 901, 929
on Guided Missiles, International, 314
High Speed Photography, (15)
International Astronautical, 481
International, on Rockets and Guided Missiles, 899
on Irrigation and Drainage, 169
Trades Union, 378
Twenty-Third International Town Planning and Housing, 65
Connectors for Aluminium-to-Copper Conductors, All-Weather, Kaiser Aluminium and Chemical Corporation, 347 ; J. R. Harding, (Letter, 402)
Conservation of Land, L. Dudley Stamp, 643
Conserving the Expendable, (Leading Article, 498)
Water Resources, G. M. Binnie, 571
Constance Water Supply Scheme, Lake, 102
Constant Drive on Tractor, David Brown Companies, 23
Tension Spring, Tensator Ltd., 630
Construction, Block Signalling Instrument of Unit, 410
A Career in, John Laing and Son, Ltd., (904)
Concrete Runway and Road, 665
of Engineering Foundations, Design and, F. D. C. Henry, (Review, 269)
in Mild Steel, Arc-Welded Machinery, (Report, 288)
Permits for Large-Scale Nuclear Power Stations, Issue of, U.S. Atomic Energy Commission, 175
of the Priest Rapids Dam in Washington, 565
Programme of the Bureau of Reclamation, New, 249
of Research Reactor at M.I.T., U.S. Atomic Energy Commission, 31
Route Surveys and, H. Rubey, (Review, 336)
Stud Welding Application in Reinforced Concrete, 285
Constructional Progress at Chapel Cross Nuclear Power Station, Mitchell Construction Co., 94
Steelwork, Erection of, Thomas Barron, (Review, 811)
Work Overseas by British Firms, 451
Work in Switzerland, 562
Consultation on British Railways, Joint, 279
Machinery, C.E.A., 631
Consulting Engineers and Nuclear Power Development, 571
Consumer and Automation, 898
Consumption, Coal, 99
Oil, (142)
Contact Wire for Electric Traction, Trolley and, (B.S.I., 108)
Contacts at Low Inductances, Metal Transfer between Palladium and Silver, J. Riddlestone, (Review, 121)
Containers, Collapsible Packing, Postbox G.m.b.H., 419
Content Meter, Moisture, Paneletrik OHG., 634

CONTINENTAL ENGINEERING NEWS

All-Fuel Industrial Boiler, Societe Pradairol, Poujardieu and Cie, 562
Aluminium Brightening Process, Erftwerk, 174
Road Bridge at Lunen, 711
Angled Holes with Rounded Corners, 246
Anglo-German Atomic Energy Agreement, 183
Applications Scientifiques de la Notion de la Regularite, Les, P. Vernotte, (Review, 21)
Association des Industries de Belgique, Annual Report, 787
Technique Maritime et Aeronautique, 136
Automatic Production Milling Machine, Elgar Machine Tool Co., Ltd., 47
Spline Hobbing Machine, Elgar Machine Tool Co., Ltd., 47
Train Graphs, 674
Automobile Transporter Wagon, 64
Balancing Machine for Cardan Shafts, Carl Schenck G.m.b.H., 102
Bi-Centenary of Voigtlander, 525
Bonn Radio Telescope, 749
British Engineers' Visit to German Steel Works, 928
and German Export Competition, 202
Germanium Power Rectifier Installation in France, (286)
Industry and a European Free Trade Area, 663
Swedish Chamber of Commerce, (386)
Brussels Universal Exhibition, 1958, 750
Car Headlamp, Improved, 489
Sleeper Expresses on French Railways, (657)
C.E.R.N. European Proton Synchrotron, 243
Coal-Fired Closed-Cycle Air Turbine Plant, 927
Collapsible Packing Containers, Postbox G.m.b.H., 419
Common European Market, (Leading Article, 497)
Compressed Air Concrete Placer, Friedrich Wilh. Schwing, G.m.b.H., 381
Air Dental Drill, Atlas Copco, 864
Computer Centre, Opening of European, 634
Constructional Work in Switzerland, 562
Convention of Chemical Science, 209
Copy-Spinning and Flow-Forming Lathe, Elgar Machine Tool Co., Ltd., 47
Cost of Documentation, 900
Dechema Annual Report for the Year 1955, 675
Decrease in Rural Population, 827
Die Bestimmung der Frontgeschwindigkeit in einem einachsig inhomogenen Korper aus seismischen Reflexionsmessungen, M. Weber, (Review, 159)
DIN Bezugsquellen fur Normgerechte Erzeugnisse, W. Porstmann, (Review, 123)
Domestic Heating in Europe, 281
Dynamique Generale des Vibrations, Y. Rocard, (Review, 269)
Eighth Annual Report of U.N. Technical Assistance Board, 29
Electric High-Frequency Power Drill Hammer, Robert Bosch, G.m.b.H., 599
Equipment of German Metal Goods Industries, 314
Erection of Broad-Strip Rolling Mill, Hahnsche Werke, A.G., 102
Etude Experimentale de la Convection Forcee de la Chaleur a partir de Cylindres a Surface Rugueuse, E. A. Brun, G. Brunello and M. Vernotte, (Review, 159)
de la Lubrification sous Pression Rapidement Variable, (Report, 413)
European Coal and Steel Community, 598
Coal and Steel Community, 632
Co-operation, 873
Free Trade Area, (Leading Article, 641), 672
Machine Tool Committee, 899
Road Traffic, 280
Expansion of Civil Aviation, Esso A.G., 525
of Swedish Shipyard, 138
Explosives Manufacturing Plant at Ardeer, Imperial Chemical Industries, Ltd., 91
Extensions at Dutch Shipyard, 827
Fifth World Power Conference, 13
Fifty Years of German Long Distance Radio, 712
Finnish Electric Power Production, 561
First German Reactor, Munich Technical College, 65
Forthcoming German Engineers' Meetings, 209
Fourth Chemical, Rubber and Plastics Exhibition at Paris, 863
French Railway Electrification, 490
Further French Locomotive Experiences, E. H. Livesay, 188, 221, 256, 292, 324, 366, 400, (Letters, 368, 402, 474, 582)
Geoelektrische Bestimmung von Schichtgrenzen eines tertiaren Plateaus mit Quartarbedeckung, M. Weber, (Review, 305)
German Chemical Industry, 928
Commercial Vehicle Plant, Volkswagen, 675
Industrial Electricity Production, 675
Industrial Gas Turbine, Gutehoffnungshutte A.G., 65
Iron and Steel, 281
Plastics, 454
Railway Developments, 490
Scrap Consumption, 900
Standards in Translation, 675
Super Tankers, 675
Tanker Line, 209
Glockner-Kaprun Hydro-Electric Scheme, 379, 417, 453
Growth of Urban Populations in Germany, 712
High-Voltage Transmission Lines in Sweden, 209
Individual Axle Drive for Electric Locomotives, Siemens-Schuckertwerke A.G., 900
Industrial Photography, 174
Installation of Large Radioactive Source, 900
Institute of Metals, Autumn Meeting, 523
Insulators for 380kV, Stemag Steatit-Magnesia Aktiengesellschaft, 64
International Autumn Fair at Utrecht, 454
Congress on Guided Missiles, 314
Congress on Rockets and Guided Missiles, 899
Organisation for Standardisation, 157
Town Planning and Housing Congress, Twenty-Third, 65
Wrought Non-Ferrous Metals Council, 674
Involute and Helix Tester for Large Gears, W. Ferd Klingelnberg Sohne, 561
Iron Ore Deposits Near Salzgitter, 346
Italian Concrete Structures, (422)
Oil and Gas Industry, V. S. Swaminathan, 313, 344
Lake Constance Water Supply Scheme, 102
Lifting and Tipping Goods Wagon, Two-Way, Siegener Eisenbedarf A.G. (S.E.A.G.), 30
Lightweight Electric Passenger Train, 280
Pendulum Starter Dynamo, Robert Bosch G.m.b.H., 787
Lubricating Oil Installation for Austria, Shell Austria A.G., 346
Machining of Turbine Castings, 208
Masing, G., Obituary, 525
Measurements in Concrete Structures, V.D.I., 381
Medium Horsepower Diesel Engine, 208

Mineralol-und Brennstoffnormen, (Report, 352)
Moisture Content Meter, Panelektrik OHG, 634
Moselle Agreement Signing, 827
Motorised Glider, Martin Neulen K.G., 454
Multi-Roll Cold Rolling Mill, Schloemann Aktiengesellschaft, 246
North German Experimental Reactor, 928
Sea to Rhine Pipeline, 209
Nouvelle Conception de la Resistance des Materiaux, A. Couard, (Review, 122)
Quality Tests for Household Goods, Federal Institute for the Testing of Household Products and Research into Quality, 381
Paper from Bark-Stained Timber, Swedish Cellulose Company, 381
Paris Terminus of the Chemin de Fer du Nord, 477
Pipeline for Milk, 138
Piano-Milling Machine, Elgar Machine Tool Co., Ltd., 47
Plastic Pipework, Rhein-Plastic-Rohr G.m.b.H., 29
Polish Railway Electrification Plans, 490
Radar for Traffic Control, 900
Radio-Telephony in Railway Marshalling, 634
Radio and Television Mast at Steinkimmen, 489
Radioactivity Measurements in Germany, 787
Railway Technical Information Exchange, 562
Rebuilding of Eindhoven Station, 826
Reduction of Aircraft Noise, 786
Reference Manual of German Machine Tools, (Report, 252)
Remote-Reading Inclinometer, Maihak A.G., 490
Rhine Bridge, Mannheim-Ludwigshafen Demag A.G., 174
River Lech Hydro-Electric Scheme, Bayerische Wasserkraft-werke A.G., 173
Rock Tunnelling on the Ume River, 787
Roughing Roll Lathe, Heavy-Duty, Maschinenfabrik Herkules, 30
Royal Netherlands Industries Fair, Utrecht, 65
"Schiffstechnik", Forschungshefte fur Schiffbau und Schiffsmachinenbau, (Review, 123)
Selection and Training of Foremen in Europe, Sven Grabe and Paul Silberer, (Review, 924)
Slabbing Mill begins Operations, Dortmund-Horder Hutten-Union, 454
Slag Heap Reclamation in Upper Silesia, 675
Stage Lighting at the Dusseldorf Opera House, 864
Steel Investment in Western Europe, 206
Straightening of Bent Reinforcing Rods,, 599
Press, Pitzmann and Pfeiffer K.G., 674
Stromungsvorgange in kunstlich belufteten Raumen, W. Linke, (Review, 159)
Suction-Clamped Test Indicator Stand, Hommelwerke, 30
Sud-Est Aviation, 209
Sur un Curieux Cas D'Alternance de Tourbillons, (Report, 352)
Sur la Turbulence Spatialment Homogene, (Report, 413)
Sweden's Forest Products Industries, 281
Swedish Forest Industries, Extension Plans, 675
Forestry Research Centre, 246
Laboratory for Packaging Research, 30
Launches and Deliveries, 674
Swiss Car Imports, 281, 750
Foreign Trade, 246, 712
Mechanical Engineering Industry, 101
U.S. Atomic Agreement, 562
Water Power, 786
Technical Judges in Germany, 280
Telephone in Switzerland, 419
Third German Tin Conference, 863
Timmelsjoch Road, The, 281
Towards European Integration : First Results for Coal and Steel, (Report, 746)
Trials of Turbo-Charged Two-Stroke Marine Diesel Engine, Gebr. Sulzer A.G., 245
Tubular Steel Dolphin, 599
Steel Tower, 599
Tuncbilek Power Station, 65
Utilisation of Swiss Hydro-Electric Power, 599
Verein Deutscher Ingenieure, Annual Report for 1955, 750
West German Locomotives, 65
Shipbuilding, 102
Wire Race Ball and Roller Bearings, Eisenwerk Rothe Erde G.m.b.H., 525
World Power, (Leading Article, 1)
Ybbs-Persenbeug Hydro-Electric Scheme on the Danube, 100
Zinc-Aluminium-Copper Bearing Alloy, 561
Zur Interpretation von Seismischen Refraktionsmessungen, M. Weber, (Review, 123)

Continuous Automatic Swarf and Oil Separator, Sharples Centrifuges Ltd., 515
Backing Bar and Clamp for Cylindrical Welding, Combined, Yates Plant, Ltd., 26
Carburising, E.N.V. Engineering Co., Ltd., 308
Casting of Steel Billets, United Steel Companies, Ltd., 374
Grinder, Four-Head, Lumsden Machine Co., Ltd., 46
Contouring Lathe, Gaston E. Marbaix, Ltd., 45
Contract, Conditions of, in Overseas Civil Engineering Works, (422)
Contracting Industry : Illustrated History, British Civil Engineering, (Review, 21)
Contractors' Machinery, (Patent, 287)
Pump, Self-Priming, Sigmund Pumps Ltd., 737

Contracts, 70, 106, 142, 214, 250, 286, 318, 350, 458, 530, 566, 602, 638, 678, 716, 754, 792, 830, 868, 904, 932
of Service, 631
Contributions to Engineering History, American and other, 85
Control, Automatic Stock Level, on Blast Furnaces, I. Kjellman and K. Gronblad, 800
Automatic, and Warning for Air Compressors, Holman Brothers Ltd., 824
in the Columbia Basin, Flood, 349
of Cracks in Reinforced Concrete, 33
Low Temperature Corrosion, British Petroleum Co., Ltd., (588)
of Quality in the Production of Wrought Non-Ferrous Metals and Alloys, (Review, 53)
Remote, on the South African Railways, 673
System Nomogram, R. H. Macmillan, 195
of Traffic by Radar, 900
of Veneer Feeling Lathe, Ward-Leonard, Tyne Timber and Veneers, Ltd., 96
Controllable-Pitch Marine Propellers, Escher Wyss A.G., 513
Controller, Programme Temperature, Ether Ltd., 746
Controllers, Slack-Diaphragm Pressure, George Kent, Ltd., 595
Controlling the Yellow River, Report on the Multiple-Purpose Plan for Permanently, Teng Tse-Hui, (Review, 87)
Convection Forcee de la Chaleur a partir de Cylindres a Surface Rugueuse, Etude Experimentale de la, E. A. Brun, G. Brunello and M. Vernotte, (Review, 159)
Convention of Chemical Science, 209
on Ferrites, 607
Conversazione Institution of Civil Engineers, 18
Conversion Tables, Rectangular-Polar, E. H. Neville, (Review, 21)
Converter, Torque, Motor Grader Equipped with, Le Tourneau-Westinghouse Company, 931
Conveying, Belt, Sutcliffe's Manual, 887
Equipment, Pneumatic, Blaw Knox Ltd., (678)
Design, Handbook on Belt, (Review, 269)
Conveyors and Transporters, (Patent, 793)
Coolant for High Temperatures, Transformer, 168
Cooled Turbine Nozzle Blade, Effusion, (Report, 897)
Cooler, Rotary, for Granular or Powdered Materials, Dunford and Elliott Process Engineering Ltd., 897
Cooling System for Weaving Shed, Thomas Longworth (Sales), Ltd., 310
Copper Alloy Check Valves for General Purposes, (B.S.I., 36)
Alloy Gate Valves for General Purposes, (B.S.I., 36)
Beryllium, 923
and Cadmium-Copper Stranded Conductors for Overhead Electric Traction Systems, (B.S.I., 108)
Conductors, Paper-Covered Rectangular, for Transformer Winding, (B.S.I., 651)
Residue Valuation, Metallic Extractors (Non-Ferrous), Ltd., (59)
at 250 Deg. Cent., Combined Stress Creep Fracture of a Commercial, A. E. Johnson, J. Henderson and V. D. Mathur, 261, 299
Zinc-Aluminium Bearing Alloy, 561
Copying Lathe, Dowding and Doll, Ltd., 44
Milling Machine, Automatic Hydraulic, Dowding and Doll, Ltd., 44
Copy-Spinning and Flow-Forming Lathe, Elgar Machine Tool Co., Ltd., 47
Cord Tyres, Rayon, Courtaulds Ltd., (868)
Corliss Engine, 119
Engine, Compound, 512
Cornell Aeronautical Laboratory, Research on Automobile Stability, 774, 806, 845, 879
Corners, Angled Holes with Rounded, 246
Corrosion Control, Low Temperature, British Petroleum Co., Ltd., (588)
Low-temperature, British Petroleum Co., Ltd., 483
Protection for Springs, Crane Packing Ltd., (602)
of Steel, 303
Corrugated Diaphragms, Theory of Restrained, C. B. Flindt, 193
Cost Accountancy, Commerce Graduates and, (142)
of Labour Turnover, 672
Costs, Industry's Labour, 311
Problem of Rising, Crossley Brothers Ltd., 597
Couches Limites Laminaire et Turbulente en Ecoulement Compressible, Nouvelle Methode Approchee, Calcul des, (Report, 388)
Council of British Manufacturers of Petroleum Equipment, Annual Dinner, 463
of Ironfoundry Associations, "Men, Management and Metal", 597
Counting Equipment, Batch, Sutton Coldfield Electrical Engineers, 709
Coupling, Fluid, Self-Changing Gears Ltd., 470
Hydraulic Pipe, Kay and Co. (Engineers) Ltd., 377
Couplings, Tube and Pipe, (Patents, 603, 717)
Course in Boilermakers' Work, Revised, (70)
Nuclear Engineering, (178)
Courses in Highway and Foundation Engineering, Post-Graduate, (214)
Lecture, Civil Engineering, (602)
in Technical Illustration, (Leading Article, 182)
Cracks in Reinforced Concrete, Control of, 33
Craft, Small, Slipway for Repair at Millwall, 683
Craftsmanship, Traditions of, 391
Crane Developments, Mobile, Steeles Engineering Products Ltd., 814
Hydraulically - Operated Truck-Mounted, Chamberlain Industries, Ltd., 412
Manufacturer's Laboratories, Steeles Engineering Products, Ltd., (164)
7½-Ton Grabbing, Stothert and Pitt Ltd., 856
Cranes and Lifting Appliances, Patents, 319, 423, 869
Crankshaft Hardening Machine, Radio Heaters Ltd., 485
Creep Fracture of a Commercial Copper at 250 Deg. Cent., Combined Stress, A. E. Johnson, J. Henderson and V. D. Mathur, 261, 299
and Fracture of Metals at High Temperatures, (Review, 237)
Criteria, Performance, of Gas-Turbine Combustion Chambers, D. B. Spalding, (Review, 550)
of Yield, D. G. Sopwith and J. L. M. Morrison, (Letter, 810)
Cromwell Road Extension Scheme, Traffic Survey of the, 39
Road Report, (Leading Article, 110)
Weir on the River Trent, Reconstruction, (494)
Cross-Channel Cable Project, 323
Crystal Lattices, Direct Observation of Defects in, 6
Palace Water-Towers, 3
Cunard Liner "Carinthia", John Brown and Co. (Clydebank), Ltd., 199
Curieux Cas d'Alternance de Tourbillons, Sur un, (Report, 352)
Curing of Varnish and Lacquer on Photo-Lithographic Rollers, Infra-Red, Metropolitan-Vickers Electrical Co., Ltd., 670
Current, Stray Load Losses in Alternating, (Report, 252)
Cut-offs in Modern Hydraulic Diversion Works on Alluvial Rivers, S. Leliavsky, 184, 228
Cutter, Chaff, and Thresher, 736
Loader, Coal, Hartley Bank Colliery, 823
Cutting Tool Performance with Radioactive Isotopes, Measurement of, Alexander Duckham and Co., Ltd., 127
Cycle Show, Motor, 701
Cycles, Motor, History and Development, C. F. Caunter, (Review, 474)
Cycloid Tooth, Let's Forget, W. A. Tuplin, 836
Cylinder, Stainless Linered Press, English Steel Corporation, Ltd., 278
Cylinders, Large, Rectification of, Nicol and Andrew, Ltd., (422)
Steel, Internal Pressure Tests on, 620
Cylindres a Surface Rugueuse, Etude Experimentale de la Convection Forcee de la Chaleur a partir de, E. A. Brun, G. Brunello and M. Vernotte, (Review, 159)
Cylindrical Grinder, Combined Hydraulic Tailstock and Wheel Truing Equipment for, John Lund, Ltd., 9
Grinding Machine, Myford Engineering Co., Ltd., 708
Welding, Combined Continuous Backing Bar and Clamp for, Yates Plant, Ltd., 26

D

D.C. and A.C. Conduction Pumps for Liquid Metals, L. R. Blake, 572
Daer Water Supply in Lanarkshire, Inauguration, 592
D'Alternance de Tourbillons, Sur un Curieux Cas, (Report, 352)
Damage, Scoring and Surface, 922
Damascus Fair, 323
Damodar Valley Development, (885)

DAMS

Aswan High Dam, 112
and Suez, (Leading Article, 146)
Cut-offs in Modern Hydraulic Diversion Works on Alluvial Rivers, S. Leliavsky, 184, 228 ; L. Beazley, (Letter, 236)
Finlarig Power Station, North of Scotland Hydro-Electric Board, 25
Gewlo Dam, New, 172
Homogeneous Earth-Fill Dam of the Foxcote Reservoir, 618
Kariba Dam, (Leading Article, 110) ; (Letter, 196)
Hydro-Electric Scheme on the Zambesi River, 155
Priest Rapids Dam, Construction in Washington, 565
Provision of Dams in the Rhodesias, 172
Volta River Project, 112

Danger of Bituminous Coal Dusts, Explosion, W. Morsbach, (Review, 21)
Dangerous Railway Level Crossing Eliminated, S. Africa, 673
Danube, Ybbs-Persenbeug Hydro-Electric Scheme on the, 100
Dar es Salaam, Opening of Deep-Water Berths, 509
Data Sheets, Materials, S.B.A.C., (859)
Daylight Monitor, General Electric Co., Ltd., 483
De Bay Propeller, 1880, 850
Decade Air Condenser, W. H. F. Griffiths, 691, 728
Dechema Annual Report for the Year 1955, 675
Decks, Right Bridge, Subjected to Abnormal Loading, Analysis, (Report, 746)
Decrease in Rural Population, Continental, 827
Dedication of Mauna Loa Observatory in Hawaii, 601
Deep Diving and Life-Saving from Submarines, 702
Therapy in Great Britain, Radioactive "Waste" for, 607
Water Berths at Dar es Salaam, Opening, 509
Defects in Crystal Lattices, Direct Observation of, 6
Defence Policy, Reappraisal of British, (Leading Article, 38)
Research in Australia, (792)
Degreasing Discussion, (678)
"Deltic" Engine Development, C. D. Carmichael, 700
Demand, British Steel Home, 170
Demonstration, Manchester, Machine Tool, Alfred Herbert Ltd., (458)
of Military Vehicles, 518
Densitometer, Colour, Kodak Ltd., 671
Density Meter, Smoke, Bailey Meters and Controls, Ltd., (318)
Dental Drill, Compressed Air, Atlas Copco, 864
Deposition, Polymer, Horwitch Smith and Co., Ltd., 434
Deposits Near Salzgitter, Iron Ore, 346
Depot at Stratford, Diesel Maintenance, (318)
Derailment, Milton, and A.T.C., (Leading Article, 354)
Design, A By-Way in Engineering, (Leading Article, 253)
and Construction of Engineering Foundations, F. D. C. Henry, (Review, 269)
of Electrical Apparatus Having Double Insulation, (B.S.I., 108)
Handbook on Belt Conveyor, (Review, 269)
of Ingots for High Output in the Slabbing Mill, H. G. Jones, P. D. Dickerson and D. T. Steer, 765
Jig and Fixture, P. S. Houghton, (Review, 583)
Mathematics, Aircraft, Bristol Aircraft, Ltd., 39
of Multi-Storey Steel Frame Buildings (Report, 252)
Panel, Transport Commission, 597
of Piping Systems, (Review, 237)
Research, (95)
of Wing Sections, T. Nonweiler, (Review, 550)
Designing, Industrial, 451
Detecting Real Changes in Frequency, Test for, Stafford Beer, 798
Detector for Audio-Frequency Measurements, Stable Synchronous, (Report, 19)
Determinate Structures, Statically ; Theory of Prestressed Concrete Design, Henry H. Cowan, (Review, 475)
Development, Automotive, 31
Engineers for British Railways, 835
and History of Motor Cycles, C. F. Caunter, (Review, 474)
An Industrial Establishment for Nuclear Power, G.E.C. Simon-Carves Atomic Energy Group, 271
of Natural Resources, (318)
Nuclear Power, (Leading Article, 73)
Nuclear Power and Consulting Engineers, 571
of Nuclear Power, Scientific Problems in, Sir John Cockcroft, 40
Policy in Long Welded Rails, 134
of Power Cables, P. V. Hunter and J. T. Hazell, (Review, 236)
and Research, Expenditure on, D.S.I.R., 362
South African Railway, 134
Supercharger, 156
Developments in Aeronautics, Gas Turbine, A. W. Morley, 16
Device, Forging Machine Feeding, Eumuco (England), Ltd., (106)
Dewatering Methods in Irrigation Problems, Modern, S. Leliavsky, 114, 148
Diagrams for Nonsteady Flow in Ducts, Wave, George Rudinger, (Review, 20)
Diaphragm Blades, Conditions of Failure in some Turbine, K. H. Khalil, 78
Diaphragms, Theory of Restrained Corrugated, C. B. Flindt, 193
"Dido" Research Reactor at Harwell, 721, 812
Die Bestimmung der Frontgeschwindigkeit in einem einachsig inhomogenen Korper aus seismischen Reflexionsmessungen, M. Weber, (Review, 159)
and Tool Handling Equipment, Heavy, Matling Ltd., and Talbot-Ponsonby and Co., Ltd., (566)
Diecasting Process, The, H. K. Barton, (Review, 197)
Dielectric Heating, Glossary of Terms Used in Industrial High-Frequency Induction and, (B.S.I., 544)
Irradiation Laboratory, British Insulated Callender's Cables, Ltd., 594
Diesel and Electric Locomotive Building in Lancashire, English Electric Co., Ltd., 413
Electric Locomotives for Eire, Sulzer Brothers (London) Ltd., 485
Engine Manufacture at a British Locomotive Works, North British Locomotive Co., Ltd., 411
Engine, Medium Horsepower, 208
Engine Mobile Training Equipments, F. Perkins, Ltd., (808)
Engine, Small, R. A. Lister and Co., Ltd., 737
Engine Speed Increase, Davey, Paxman and Co., Ltd., (932)
Engine Starter, Storhaven Engineering Ltd., 740
Engine, Trials of Turbo-Charged Two-Stroke Marine, Gebr. Sulzer A.G., 245
Engine, "2D", David Brown Industries Ltd., 737
Engines, Distributor Pump for, C.A.V. Ltd., 373
Engines, Four Automotive, Henry Meadows, Ltd., 405
Engines, Low-Power Marine, Petters Ltd., 515
Engines for Rail Traction, (Leading Article, 719)
Engineers and Users Association, Diesel Engines for Rail Traction, (Leading Article, 719) ; Heavy-Oil Engine Working Costs and Performance, (Leading Article, 908); The Special Requirements of Diesel Engines for Rail Traction, J. S. Tritton, (754) ; The Use of Internal Combustion Plant for Peak Loads in Electricity Systems, (638)
and High Compression Gas Engines, Edgar J. Kates, (Review, 53)
in Industry, R. A. Lister and Co., Ltd., (142)
Locomotives in Mines, (Report, 388)
Maintenance Depot at Stratford, (318)
Railcar for a Branch Line, Modified, (350)
Railcars, Inter-City, Western Region of British Railways, 164
Traction, 63
Differential Equations, S. V. Fagg, (Review, 237)
Pressure Method, Flow-Measurement by the, (Review, 53)
Digger, Trench, William Reynolds and Sons (Bedford) Ltd., 815
Digital Calculators, Automatic, A. D. Booth and K. H. V. Booth, (Review, 305)
Computer for Research, (422)
Computers, Electronic, Factory, Ferranti, Ltd., 593
Dimensions of Condenser Rubbing Leathers, (B.S.I., 36)
DIN Bezugsquellan fur Normgerechte Erzeugnisse, W. Porstmann, (Review, 123)
Dingle Bank Boiler Installation, Shell-Mex and B.P., Ltd., 132
Diploma, National, in Agricultural Engineering, (678)
Direct Observation of Defects in Crystal Lattices, 6
Directing Research, H. E. Wimperis, 372
Research Establishments, 28
Directory of Railway Officials and Year Book, 1956-57, 849
Disc Harrows, E. H. Bentall and Co., Ltd., 816
Disgusting Process, This Really, (Leading Article, 390)
Dispensing Vehicle, Bulk Oil, Shell Mex and B.P. Ltd., 669

Displacement, Turbine Shaft, Pneumatic Measurement, C. A. Scoles, 763
Display and Exhibition, S.B.A.C. Flying, 333, 363
Industrial Equipment, 341
Disposal of Sewage, The, T. H. P. Veal, (Review, 87)
of Sewage and Other Water-borne Wastes, Karl Imhoff, W. J. Muller and D. K. B. Thistlethwayte, (Review, 735)
Works, Sewage, Maritzburg, 673
Dispute, Steel Industry, 61 ; Report, 311
Settlement of B.M.C., 242
Disputes and Absenteeism, Coal Mining, 488
Industrial, 343
Distortion of a Stiff Jointed Frame on its Plastic Collapse Load, Effect of, J. W. H. King and D. E. Jenkins, (Letter, 20); M. R. Horne, (Letter, 87)
Distribution and Stocks of Steel, 898
Distributor Pump for Diesel Engines, C.A.V. Ltd., 373
Ditch Cleaner, Dragline, Whitlock Bros., Ltd., 815
Cleaning Machinery Competition, (784)
Diversion Headworks, Concept of Irrigation, N. V. Knight, (Letter, 304)
Works on Alluvial Rivers, Cut-offs in Modern Hydraulic, S. Leliavsky, 184, 228
Diving, Deep, and Life-Saving From Submarines, 702

DOCKS AND HARBOURS

Dock Labour, 522
Dry Docks, (Patent, 36)
Improvements Schemes for Newport and Barry Docks, 797
Inquiry into the Dock Labour Scheme, 170
Newhaven Harbour Extension, 696
Opening of Deep-Water Berths at Dar es Salaam, 509
of Dry Dock on the River Tyne, Brigham and Cowan, Ltd., 413
Pumping Plant for the Wallasey Impounding Station at Mersey Docks, 129
S.A.R. Cape Development, 172
Tipping Concrete Blocks, 88

Documentation, Cost of, 900
Dolphin, Tubular Steel, 599
Domain Structures in Alnico, Study of, (Report, 216)
Domestic Heating in Europe, 281
Doncaster By-Pass, Proposed Route of, 75
Doors, Translucent Flexible, Parker, Winder and Achurch Ltd., (740)
Double-Action Pump, 158
Double-Decker Bus, "Atlantean", Leyland Motors, Ltd., 392
Bus, "Bridgemaster", A.C.V. Group, 392
Bus, "Loline", Dennis Bros. Ltd., 430
Bus, Rear-Engined, Leyland Motors, Ltd., 339
Double Insulation, Design of Electrical Apparatus Having, (B.S.I., 108)
Double-Spindle Automatic Shaper, Thomas White and Sons, Ltd., 11
Doubling and Improvements on the Natal Main Line, 134
Dragline Ditch Cleaner, Whitlock Bros., Ltd., 815
12 Cubic Yard Walking, Ransomes and Rapier, Ltd., 274
Drain and Sewer Pipes, Pitch-Impregnated Fibre, (B.S.I., 180)
Drainage, Congress on Irrigation and, 169
Portsmouth's Main, (932)
and Use of Methane from Coalfields, (Review, 269)
Drainer, Tractor-Mounted Subsoiler and Mole, Ransomes, Sims and Jefferies, Ltd., 24
Drawbench, Automatic Triple-Draw, High-Speed, Head Wrightson Machine Co., Ltd., 375
Drawing and Geometry, Engineering, R. P. Hoelscher and C. H. Springer, (Review, 197)
Office Equipment, (Patent, 755)
Drawn Brass Wire for Springs, Round Hard, (B.S.I., 861)
Drier, Tyre, Grantham Electrical Engineering Co., Ltd., 671
Drifting Tools, Trend Industrial Equipment Ltd., (541)
Drill, Compressed Air Dental, Atlas Copco, 864
Hammer, Electric High-Frequency Power, Robert Bosch, G.m.b.H., 599
Holes, Study of Underground Water Movements by Measurements in, Gordon Newstead and J. C. Jaeger, 76
Petrol-engine-driven, Atlas Copco (Great Britain) Ltd., 737
Rigs, Twin, for Trench Blasting Holes, Climax Rock Drill and Engineering Works, Ltd., (702)
Drilling Machine, Radial, James Archdale and Co., Ltd., 47
Package Units, Oil Well, Davey, Paxman and Co., Ltd., 706
Drive, Abbey Works Slabbing Mill, Steel Company of Wales, 98
for Electric Locomotive, Individual Axle, Siemens-Schuckertwerke, A.G., 900
Electrical, for Five-Stand Tandem Cold Mill at Velindre, Davy and United Engineering Co., Ltd., 661
for a Flour Mill, Electrical, Cranfield Brothers, Ltd., 167
Power, British Thomson-Houston Co., Ltd., 25
Self-Tensioning Belt, Leder and Cie Ltd., 675 on Tractor, Constant, David Brown Companies, 23
Driving Unit, Flameproof Loudspeaker, General Electric Co., Ltd., 165
Dry Dock on the River Tyne, Opening of, Brigham and Cowan, Ltd., 413
Docks, (Patent, 36)
Drying of High-Voltage Transformers, (Report, 288)
Dual Air Brakes, Westinghouse Brake and Signal Co., Ltd., (581)
Ductile Steel for Bridges, Notch, (B.S.I., 195)
Ducts, Wave Diagrams for Nonsteady Flow in, Georg Rudinger, (Review, 20)
Dump Truck, 8 cubic yard, Scammell Lorries Ltd., 737
Dumper, 10 cubic yard, A.E.C. Ltd., 737
Duplex Wheel Lathe, 337
Dusseldorf Opera House, Stage Lighting, 864
Dust Explosions, Wet Processes for Combating Fire-Damp and Coal, H. Schultze-Rhonhof, (Review, 159)
Dusts, Explosion Danger of Bituminous Coal, W. Morsbach, (Review, 21)
Technical Explosion Investigations of Industrial, E. Wehner, (Review, 159)
Dutch Shipyard, Extensions, 827
Dynamique General des Vibrations, Y. Rocard, (Review, 269)
Dynamo, Lightweight Pendulum Starter, Robert Bosch G.m.b.H., 787

E

Earnings, Average, and Hours, 488
Earth-Fill Dam, Homogeneous, of the Foxcote Reservoir, 618
Satellite Programme for the International Geophysical Year, U.S., 247
Earthmoving Equipment, New, Marshall, Sons and Co., Ltd., (295)
East Anglian Gas Grid, (165)
Eastern Mess, Middle, (Leading Article, 682)
Echo Range and Sounding Fishing Equipment, Kelvin and Hughes (Marine), Ltd., 559
Economic Consequences of Automation, Paul Einzig, (Review, 510)
Situation, The, 343
Statistics, 631
Economics, Oil, and Nuclear Power, (Leading Article, 833)
Eddystone Lighthouses, 18½, 925
Edinburgh, The "Mechanicals" at, (Leading Article, 37)
Education, Automation and Training, Conference, (754)
in Russia, Engineering, 391
Management, 710
of the Young Worker, (142)
Their Lordships Discuss, (Leading Article, 758)
Educational Institutions, Loan of Plutonium-Beryllium Neutron Sources, 715
Effect of Distortion of a Stiff Jointed Frame on its Plastic Collapse Load, J. W. H. King and D. E. Jenkins, (Letter, 20); M. R. Horne, (Letter, 87)
of Low Temperature on the Stability of Permanent Magnets, (Report, 216)
Effective Supervision, Milon Brown, (Review, 438)
Effects in Fatigue, Surface, 121
of Atomic Radiation, Biological, (285)
Efficiency, Fuel, Exhibition, 483
in Foundries, Fuel, (70)
Industrial, 488
of Adhesives for Wood, (Report, 897)
of Screening Operations for Roadmaking Aggregates, F. A. Shergold and J. R. Hosking, 258
Effluents, Trade, The Law Dealing with, 672
Effusion Cooled Turbine Nozzle Blade, (Report, 897)
Egmanton Oilfield, British Petroleum Co., Ltd., (163)
Eighth Annual Report of U.N. Technical Assistance Board, 29
Eindhoven Station, Rebuilding, 826
Eire, Diesel-Electric Locomotives for, Sulzer Brothers (London) Ltd., 485

ELECTRICAL

A.C. and D.C. Conduction Pumps for Liquid Metals, L. R. Blake, 541, 572
All-Weather Connectors for Aluminium-to-Copper Conductors, Kaiser Aluminium and Chemical Corporation, 347 ; J. R. Harding, (Letter, 402)
B.B.C. New Mobile Studio, (34)
Bradwell Nuclear Power Station, Central Electricity Authority, 98
Burlington Power Station, New Jersey, 382
C.E.A. Consultation Machinery, 631
Calder Hall, Kenneth Jay, (Review, 583)
Power Station, 464 (Colour Suppt.), 500 ; 537
Carrington Power Station, Central Electricity Authority, 124
Channel Cable, J. H. M. Sykes, 433
Classification of Insulating Materials, (B.S.I., 320)
Commissioning of Calder Hall No. 1 Reactor, Gordon Brown and K. L. Stretch, 722, 760
Constructional Progress at Chapel Cross Nuclear Power Station, Mitchell Construction Co., 94
Copper and Cadmium-Copper Stranded Conductors for Overhead Electric Traction Systems, (B.S.I., 108)
Cross-Channel Cable Project, 323
Daylight Monitor, General Electric Co., Ltd., 483
Design of Electrical Apparatus Having Double Insulation, (B.S.I., 108)
Development of Power Cables, P. V. Hunter and J. T. Hazell, (Review, 236)
Diesel and Electric Locomotive Building in Lancashire, English Electric Co., Ltd., 413
Drying of High-Voltage Transformers, (Report, 288)
Electric Furnace Elements, Morgan Crucible Co., Ltd., (904)
Lighting, 1881, 886
Electrical Drive for Five-Stand Tandem Cold Mill at Velindre, Davy and United Engineering Co., Ltd., 661
Drive for a Flour Mill, Cranfield Brothers, Ltd., 167
Energy, First issue, 355
Equipment for Malting Plant in Nairobi, East African Breweries, Ltd., 204
Load Measuring System for Kingsbury Thrust Bearings, Baldwin-Lima-Hamilton Corporation, 715
Principles, H. Cotton, (Review, 810)
Research and Food Production, 759
Electricity, Magnetism and Atomic Physics, J. H. Fewkes and J. Yarwood, (Review, 781)
Electrification of a Welsh Grit-Stone Quarry, Anglo-American Asphalt Co., Ltd., 95
Electronic Tachometer, Reilly Engineering Ltd., 364
Energy from the Sea, J. H. M. Sykes, 54
Factory for Electronic Digital Computers, Ferranti Ltd., 593
Ferrites, Convention, 607
Finlarig Power Station, North of Scotland Hydro-Electric Board, 25
Finnish Electric Power Production, 561
Flameproof Electrical Apparatus, (Report, 131)
Loudspeaker Driving Unit, General Electric Co., Ltd., 165
Fleetwood Power Station, Central Electricity Authority, 408
Fluorescent Lighting, General Electric Co., Ltd., 25
Forward Scatter of Wireless Waves, 210
Generating Sets, 550MW, for C.E.A., 797
German Industrial Electricity Production, 675
High-Energy Spark Ignition Equipment for Oil Burners, Foster Transformers, Ltd., 310
Frequency Power Drill Hammer, Electric, Robert Bosch, G.m.b.H., 599
Marnham Power Station, Central Electricity Authority, 240
Speed Photography Congress, (15)
Voltage Glass Insulator Laboratory, Pilkington Brothers Ltd., 658
Voltage Transmission Lines in Sweden, 209
Horizontal Batch Production Furnace, Wild-Barfield Electric Furnaces, Ltd., 44
Impulse Tests on 275kV Super-Grid Transformer, Bruce Peebles and Co., Ltd., 241
Individual Axle Drive for Electric Locomotives, Siemens-Schuckertwerke A.G., 900
Induction Heater, 7kW, General Electric Co., Ltd., 240
Industrial Triode Valves, General Electric Co., Ltd., (754)
Insulation and Sheath of Electric Cells, P.V.C., (B.S.I., 72)
Insulators for 380kV, Stemag Steatit-Magnesia Aktiengesellschaft, 64
Iron-Loss Test on Transformers, (Report, 216)
Issue of Construction Permits for Large-Scale Nuclear Power Stations, U.S. Atomic Energy Commission, 175
Lightweight Electric Passenger Train, 280
Medium-Voltage Withdrawable Switchgear, George Ellison Ltd., 486
Miniature Circuit Breaker, British Central Electrical Co., Ltd., (458)
Network Analysers, A.C., (Report, 252)
Nuclear Power Stations, 300MW, for Great Britain, 891
Off-Peak Electrical Heating, Thermodare (Great Britain) Ltd., 483
Paper-Covered Rectangular Copper Conductors for Transformer Windings, (B.S.I., 651)
Patents, 107, 143, 252, 287, 351, 603, 679, 717
Photo-electric Safety Ohm-meter, Fairey Aviation Co., Ltd., 364
Place of Calder Hall Reactor in Nuclear Power Generation, Sir Christopher Hinton, 726
Portable Power Point for Electric Tools, Wolf Electric Tools, Ltd., (318)
Power Drive, British Thomson-Houston Co., Ltd., 25
Proposed Site for Nuclear Power Station in Somerset, 797
Radiant Heaters, Hanovia, 743
Radio Show, The, 255
Rectifier Arc-Welding Set, Metropolitan-Vickers Electrical Co., Ltd., 310
Reheat Sets in C.E.A. Power Stations, 120MW, 112
Reorganising Electricity Supply, (Leading Article, 795)
Sea Water Evaporators at the Morro Bay Steam Power Station, Pacific Gas and Electric Co., 315
Self-Adjusting Arcs, (Report, 19)
Semi-Conductor Resistivity Test Set, Baird Associates Inc., 317
Semi-Conductors, Progress in, A. F. Gibson, R. E. Burgess and P. Aigrain, (Review, 695)
Sets at Belvedere Power Station, Two 120MW, Central Electricity Authority, (178)
Signalling Lamp Batteries, (34)
Significance of Calder Hall, (Leading Article, 461)
Silicon Junction Rectifiers, British Thomson-Houston Co., Ltd., 484
Snap-Action Limit Switch, Sharp Control Gear, Ltd., 133
Sound System for Colston Hall Organ Tuning, General Electric Co., Ltd., 241
Stable Synchronous Detector for Audio-Frequency Measurements, (Report, 19)
Static in the Stars ? C. E. R. Bruce, 230
Stray Load Losses in Alternating Current, (Report, 252)
Submarine Cable, 138kV, for Vancouver Island, 589
Telegraph Across the Atlantic, Electric, 720
Telephone Equipment Factory at Germiston, New, 63
Tesla's Contribution to Electrical Engineering, Reginald O. Kapp, 371
Thermometer for Testing Transformers, (Report, 288)
Transformer and Rectifier Factory Expansion, Hackbridge and Hewittic Electric Co., Ltd., 703
Triode for Industrial R.F. Generators, Mullard Ltd., (754)
Trolley and Contact Wire for Electric Traction, (B.S.I., 108)
Turbo-Generator with Water-Cooled Stator-Windings, Metropolitan-Vickers Electrical Co., Ltd., 854
Tuncbilek Power Station, 65
Use of Wind Tunnel Techniques in Radio Engineering, J. M. Falconer, 266
Welding at Calder Hall, P. D. Tatton-Brown, (Letter, 924)
Wind Power Plants, (Patent, 639)
Wire-Armoured Paper-Insulated Cables for Use in Mines, (B.S.I., 544)
World Power, (Leading Article, 1)
Ybbs-Persenbeug Hydro-Electric Scheme on the Danube, 100

Electrical Research Association, Electrical Research and Food Production, 759
Electrification, Fenchurch Street-Southend, 255
French Railway, 490
of a Welsh Grit-Stone Quarry, Anglo-American Asphalt Co., Ltd., 95
of the Epping-Ongar Line, 643
Plans, Polish Railway, 490
Electrolytic Titanium, 779
Electronic Computers, T. E. Ivall, (Review, 924)
Digital Computers, Factory, Ferranti Ltd., 593
Tachometer, Reilly Engineering Ltd., 364
Electrons, Low-Energy, Scattering of, 563
Electro-Plating Factory, Metal Cleaning and, Electro-Chemical Engineering Co., Ltd., 97
Electrostatic Air Filter, Trion Inc., 824
Precipitation in Theory and Practice, An Introduction, H. E. Rose and A. J. Wood, (Review, 550)
Elements and Pockets, Industrial Temperature-Detecting, (B.S.I., 180)
of Mechanics and Mechanisms, F. J. Camm, (Review, 887)
Embrittlement of Cobalt, Sulphur, 120
Emergency Procedures for Water Authorities, (70)
Employment and Fuel Restrictions, 862
and Unemployment, 61, 242, 378, 560, 710, 862
in 1955, 135
Maintaining Full, 135
Enclosure, Radiating, Heat Transfer to a Fluid Flowing in a Tube within, C. D. Weir, (Letter, 780)
Energy Agreement, Anglo-German Atomic, 183
Atomic, Release of Information, 873
Electrical, First Issue, 355
from the Sea, J. H. M. Sykes, 54
in India, Atomic, 62
Inventions, Atomic, (214)
Engine, "2D" Diesel, David Brown Industries Ltd., 737
Atmospheric, 1880, 809
Compound Corliss, 511
Condensing, Sulzer Brothers, 654
Development, "Deltic", C. D. Carmichael, 700
Equipment, C.A.V. Ltd., (830)
Hot Air, 1881, 886
of 1811, Trevithick, 736
Ramjet, Bristol Aero-Engines, Ltd., 203
Research, Annual Report, B.I.C.E.R.A., (480)
Reversing Rolling Mill, 512
Rotative Pumping, 435
Small Diesel, R. A. Lister and Co., Ltd., 737
Speed Increase, Diesel, Davey, Paxman and Co., Ltd., (932)
Starter, Diesel, Storhaven Engineering Ltd., 740
Steam Pumping, Shand, Mason and Co., 696
Training Equipments, Diesel, F. Perkins Ltd., (808)
Working Costs and Performance, Heavy-Oil, (Leading Article, 908)
Engineering, Agricultural, National Diploma, (678)
and Scientific Manpower, 607
at Renfrew, Developments in Nuclear Power, Babcock and Wilcox Ltd., 697
Civil, (Patent, 423)
Drawing and Geometry, R. P. Hoelscher and C. H. Springer, (Review, 197)
Education in Russia, 391
Electrical, Tesla's Contribution, Reginald O. Kapp, 371
Establishment, Central, National Coal Board, 893
Firm's Laboratory, Civil, George Wimpey and Co., Ltd., (558)
Fluid Mechanics, Charles Jaeger, (Review, 439)
Inspection, Testing and Measurement, H. C. Town, (Review, 511)
Lecture Courses, Civil, (602)
Marine, (Patent, 387)
Mining, (Patents, 388, 423, 459, 755)
Practice, Mechanical, C. H. Shoop and G. L. Tuve, (Review, 53)
Railway, (Patents, 567, 755)
Research Laboratory, Mechanical, 447
Science and Calculations, W. E. Fisher, (Review, 887)
Societies Centre to Remain in New York, 677
Studies, Portuguese Civil, (602)
Television, S. W. Amos and D. C. Birkinshaw, (Review, 619)
Wages, 414, 825
Wages and Hours, 28
Works, Conditions of Contract in Overseas Civil, (422)
Engineers and Physicists, (Leading Article, 290) ; K. L. Stretch, (Letter, 368)
and the Future, Professional, J. G. Orr, 693
British, Visit to Russian Hydro-Electric Schemes, 535
British, Visit to German Steel Works, 928
Consulting, and Nuclear Power Development, 571
for British Railways, Development, 835
Guild, Annual Report, 759 ; Professional Engineers and the Future, J. G. Orr, 693
Hostility of Certain, to the Press, 606
in Railway Service, Careers, (830)
Nickel Plating, Mond Nickel Co., Ltd., (904)
Professional, Pensions for, 825
Rural, (Leading Article, 642)
Western, and Russia, (Leading Article, 681)
Engines, Cogging, 1880, 850
Diesel, Distributor Pump for, C.A.V. Ltd., 373
Diesel, for Rail Traction, (Leading Article, 719)
Hot-Gas, and Refrigerating Plants, (Patent, 459)
Internal Combustion, (Patent, 387)
Low-Power Marine Diesel, Petters Ltd., 515
Engravings, 22, 51, 88, 119, 158, 198, 235, 270, 306, 337, 370, 404, 435, 477, 512, 551, 584, 622, 654, 696, 736, 777, 809, 850, 886, 909, 925

Enrico Fermi Award to Dr. John von Neumann, 141
Environmental Aspects of Improved Habitability, U.S. Warships, 745
Epicyclic Gearboxes, Automatic Control for Power-operated, Self-Changing Gears Ltd., 470
Epping-Ongar Line, Electrification, 643
Equation of Food and Fuel, (Leading Article, 426) ; Hugh Nicol, (Letter, 510)
Equations, Differential, S. V. Fagg, (Review, 237)
Erection of Broad-Strip Rolling Mill, Hahnsche Werke A.G., 102
of Constructional Steelwork, Thomas Barron, (Review, 811)
of Great Egg Bay Bridge Superstructure, Bethlehem Steel Co., 317
Erzeugnisse, DIN Bezugsquellan fur Normgerechte, W. Porstmann, (Review, 123)
Escapements, Clock and Watch, W. J. Gazeley, (Review, 368)
Establishment for Nuclear Power Development, An Industrial, G.E.C. Simon-Carves Atomic Energy Group, 271
Establishments, Directing Research, 28
Transport Commission's Training, (106)
Estimates of Capital Expenditure, 378
Etude de la Lubrification sous Pression Rapidement Variable, (Report, 413)
Experimentale de la Convection Forcee de la Chaleur a partir de Cylindres a Surface Rugueuse, E. A. Brun, G. Brunello and M. Vernotte, (Review, 159)
Europe, Domestic Heating in, 281
Selection and Training of Foremen, Sven Grabe and Paul Silberer, (Review, 924)
Steel Investment in Western, 206
European Coal and Steel Community, 598, 632
Computer Centre, Opening, 634
Co-operation, 873
Free Trade Area, 560, (Leading Article, 641), 672
Free Trade Area and British Industry, 663
Integration, Towards : First Results for Coal and Steel, (Report, 746)
Machine Tool Committee, 899
Market, A Common, (Leading Article, 497)
Proton Synchrotron, CERN, 243
Road Traffic, 280
Evaporators at the Morro Bay Steam Power Station, Sea Water, Pacific Gas and Electric Co., 315
Evolutionary Progression in the Long-Period Variable Stars, Atmospheric Freezing, Pulsations and, (Report, 131)
Examples in Mechanical Vibrations, J. Hannah and R. C. Stephens, (Review, 123)
Exchange of Students, International, (716)
Railway Technical Information, 562
Exchanger Surfaces, Heat, Shot Cleaning for, Keith Blackman Ltd., (678)
Exchangers, Graphite Heat, Powell Duffryn Carbon Products, (830)
Heat, (Patent, 567)
Heat, Calder Hall, 841
Executive Aircraft, Hunting Percival Aircraft, Ltd., 333

EXHIBITIONS

B.E.A.M.A. and the International Exhibition, (350)
Bessemer Centenary Exhibition, (678)
British Industries Fair, 1957, 785
Brussels Universal Exhibition, 1958, 750
Christmas Implement Show, 1856, 796
Commercial Motor Show, 392, 430, 470
Damascus Fair, 323
Exhibition of Sails and Rigging, (458)
Fourth Chemical, Rubber and Plastics Exhibition at Paris, 863
Fuel Efficiency Exhibition, 483
Gas In Industry, (742)
Gauge and Tool Exhibition, (172)
High Speed Photography Congress, (15)
Industrial Equipment Display, 341
International Autumn Fair at Utrecht, 454
Machine Tool Exhibition, 7, 43
International Motor Show, 552, 585
Machine Tool Manufacturers' Exhibition, Kerry's (Great Britain) Ltd., (830)
Machinery at the Smithfield Show, 782, 815
"Model Engineer" Exhibition, 255
Motor-Cycle Show, 701
National Boat Show, (932)
Pendulum Clock Exhibition, 721
Pneumatic Instrumentation, Negretti and Zambra Ltd., 463
Postal Mechanisation Exhibition, 451
Public Works and Municipal Services Congress and Exhibition, 643
Works Exhibition, 737
Radio Show, The, 255
Royal Netherlands Industries Fair, Utrecht, 65
Show at Newcastle-upon-Tyne, 23
S.B.A.C. Flying Display and Exhibition, 333, 363
Transport Treasures, (830)

Expansion at Imperial College, Further, (Leading Article, 533)
Imperial College of Science and Technology, (318)
of Civil Aviation, Esso A.G., 525
of Swedish Shipyard, 138
of Transformer and Rectifier Factory, Hackbridge and Hewittic Electric Co., Ltd., 703
Expedition, Antarctic, 683
Expendable, Conserving the, (Leading Article, 498)
Expenditure, Capital, 672
Capital, Estimates of, 378
in 1956, Capital, 61
on Research and Development, D.S.I.R., 362
Experiences, Further French Locomotives, E. H. Livesay, 188, 221, 256, 292, 324, 366, 400, (Letters, 368, 402, 582)
Experiment, Missile, Royal Aircraft Establishment, Aberporth, 629
Experimental B.R. Restaurant Buffet Cars, (178)
High Speed Launch, Vosper, Ltd., 26
Magnesium Alloys, 621
Reactor, North German, 928
Stress Analysis in the U.S.A. and Canada, (Report, 746)
Experimentale de la Convection Forcee de la Chaleur a partir de Cylindres a Surface Rugueuse, Etude, E. A. Brun, G. Brunello and M. Vernotte, (Review, 159)
Experts Visit to Russia, Steel, (70)
Explosion Danger of Bituminous Coal Dusts, W. Morsbach, (Review, 21)
Investigations of Industrial Dusts, Technical, E. Wehner, (Review, 159)
Explosions, Wet Processes for Combating Fire-Damp and Coal Dust, H. Schultze-Rhonhof, (Review, 159)
Explosives Manufacturing Plant at Ardeer, Imperial Chemical Industries, Ltd., 91
Export Competition, British and German, 202
Trade, United Kingdom's, 206
Exports, 597
Agricultural Machinery, 414
and Standards, 522
Promotion of, (365)
Exposition and Congress, National Metal, 865, 901, 929
Express Passenger Engine, 1879, 777
Expresses, Car-Sleeper, on French Railways, (657)
Extension Scheme, Traffic Survey of the Cromwell Road, 39
External Pressure, Local, Strength of a Tube Under, G. R. Higginson, 428
Extractor, Pile, British Steel Piling Co., Ltd., 737

F

Fabrication of Frictional Parts from "Teflon" Fibre, E. I. du Pont de Nemours and Co., 32
of Fuel Elements for Nuclear Reactors in America, 751, 788
Face Grinding Machine, Buck and Hickman, Ltd., 8
Facilities Works in Virginia, Industrial Nuclear, Babcock and Wilcox Co., 139, 176
Facing and Milling Machine, Horizontal Boring, Woodhouse and Mitchell, Ltd., 48
Lathe, Profile, Charles Churchill and Co., Ltd., 43
Factories, Fire Alarms in, 311
Ordnance, Work Study, 488
Single-Storey Concrete, (410)
Factory at Germiston, New Telephone Equipment, 63
Automobile Transmission, 133
Expansion, Transformer and Rectifier, Hackbridge and Hewittic Electric Co., Ltd., 703
for Electronic Digital Computers, Ferranti Ltd., 593
for Heavy Tapered Roller Bearings, British Timken Ltd., 819
Inspectorate, 99, 597
Inspector's Report, 825
Metal Cleaning and Electro-Plating, Electro-Chemical Engineering Co., Ltd., 97
Oil Seal, George Angus and Co., Ltd., (602)
Oil Seal, Opening, George Angus and Co., Ltd., 672
Failure in some Turbine Diaphragm Blades, Conditions of, K. H. Khalil, 78
Failures, Soil Foundation, 134
Fair, British Industries, 1957, 785
at Utrecht, International Autumn, 454
Damascus, 323
Utrecht, Royal Netherlands Industries, 65
Farnborough and the Future, (Leading Article, 321)
Farringdon, Signal Installation, (932)
Fastening and Jointing Metal Parts, Handbook of, V. H. Laughner and A. D. Hargan, (Review, 53)
Fastener, Blind, Aviation Developments Ltd., 365
Fatigue of Metals, Conference, 355, 359
Problem, Changing Nature of, H. J. Gough, 359
Surface Effects in, 121
Federal Institute for the Testing of Household Products and Research into Quality, Quality-Tests for Household Goods, 381
Federation of British Industries, Industry and the Technical Colleges, 463 ; European Free Trade Area, 672
Scholarships, Shipping, 401
Feed Press Line for Automotive Wheel Production, Automatic Transfer, Clearing Machine Corporation, 282
Feeding Device, Forging Machine, Eumuco (England), Ltd., (106)
Fenchurch Street-Southend Electrification, 255
Fermi Award to Dr. John von Neumann, Enrico, 141
Ferrite, Magnetic, Plessey Co., Ltd., (566)
Ferrites, Convention, 607
Ferrybridge Signalbox, Central Electricity Authority, (142)
Festiniog Railway, Vol. 1, 1800-1889, James I. C. Boyd, (Review, 511)
Fibre Blending and Carpet Plant, Petmar Industries Ltd., 705
Drain and Sewer Pipes, Pitch-Impregnated, (B.S.I., 180)
Fabrication of Frictional Parts from "Teflon", E. I. du Pont de Nemours and Co., 32
Pipes for Sewerage, Pitch, Union Fibre Pipes (Great Britain) Ltd., 521
Fifth World Power Conference, 13
Fifty Years of German Long Distance Radio, 712
Fighting Ships, Jane's, 1956-57, (Review, 848)
Figures for June, United Kingdom Trading, 135
Films, Industrial, 631
Industrial, Mobil Oil Co., Ltd., (678)
Technical, A. A. Jones and Shipman Ltd., (566)
Yorkshire Copper Works Ltd., (494)
Filter, Electrostatic Air, Trion Inc., 824
Filtering Equipment, Test House for Grinding, Screening and, International Combustion, Ltd., 166
Filters and Sieves, (Patent, 459)
Aviation Fuel, British Petroleum Company, (374)
Filtration Material, Air, Air Control Installations Ltd., (618)
Financial Help for Technical Students, (34)
Fine Boring Machine, Vertical, Dowding and Doll, Ltd., 44
Finnish Electric Power Production, 561
Finishing Equipment, Wide-Strip Rolling and Sheet, H. H. Ascough, 765
Processes, Metal, Roto-Finish Ltd., 486
Finlarig Power Station, North of Scotland Hydro-Electric Board, 25
Fixture and Jig Design, P. S. Houghton, (Review, 583)
Five-Year Plan, India's Second, 171
Fittings for Plumbing Systems, Moulded Polythene Tube, Imperial Chemical Industries Ltd., 671
Non-Ferrous Conduit and Conduit, (B.S.I., 72)
Fitzroy Bridge, Rockhampton, 1881, 925
Fish Collection, System of Louvres for, 103
Fishing Equipment, Echo Range and Sounding, Kelvin and Hughes (Marine) Ltd., 559
Fire Alarms in Factories, 311
Bars, Firth-Vickers Stainless Steels Ltd., (837)
Damp and Coal Dust Explosions, Wet Processes for Combating, H. Schultze-Rhonhof, (Review, 159)
Engines, 235
Grate, Circular, 306
Fires in London, 355
in Ships, Symposium, 670
Flameproof Electrical Apparatus, (Report, 131)
Fleetwood Power Station, Central Electricity Authority, 408
Flexible P.T.F.E., Bellows, Crane Packing Ltd., (530)
Doors, Translucent, Parker, Winder and Achurch Ltd., (740)
Tubes and Hoses, Quarterly Magazine, Compoflex Co., Ltd., (699)
Flies, "Viscount Major", (214)
Flight Instruments, Aircraft Gyroscopic, (Review, 619)
Flood Control in the Columbia Basin, 349
Flotation Gear, Helicopter, (132)
Flour Mill, Electrical Drive for a, Cranfield Brothers, Ltd., 167
Flow in a Pipe with Two Gases, One-Dimensional Transient, R. S. Benson, 687
in Duct, Wave Diagrams for Nonsteady, George Rudinger, (Review, 20)
Forming Lathe, Copy-Spinning and, Elgar Machine Tool Co., Ltd., 47
Measurement by the Differential-Pressure Method, (Review, 53)
Flying Boat, Saunders-Roe "Princess", (Report, 771)
Display and Exhibition, S.B.A.C., 333, 363
Flywheel Magneto Testing, Crypton Equipment Ltd., (458)
Fluid Coupling, Self-Changing Gears Ltd., 470
Flowing in a Tube within a Radiating Enclosure, Heat Transfer, C. D. Weir, (Letter, 780)
Mechanics, Engineering, Charles Jaeger, (Review, 439)
Fluorescent Lighting, General Electric Co., Ltd., 25
Flux Losses and Forces in Iron-Cored Reactors, (Report, 388)
Folding Canoe, 736
Caravan, United British Caravan Co., Ltd., 27
Food and Fuel, An Equation of, (Leading Article, 426) ; Hugh Nicol, (Letter, 510)
Production and Electrical Research, 759
Forcee de la Chaleur a partir de Cylindres a Surface Regueuse, Etude Experimentale de la Convection, E. A. Brun, G. Brunello and M. Vernotte, (Review, 159)
Forces and Flux Losses in Iron-Cored Reactors, (Report, 388)
Foremen in Europe, Selection and Training, Sven Grabe and Oaul Silberer, (Review, 924)
Foreign Trade in First Half of 1956, Swiss, 246
Trade, Swiss, 712
Forging Machine Feeding Device, Eumuco (England), Ltd., (106)
Forgings, Steel, Brittle Fracture of, 778
Steel Billets, Blooms, Bars and, (B.S.I., 341)
Forest Industries, Swedish, Extension Plans, 675
Products Industries, Sweden's, 281
Products Research, 1955, (Report, 288)
Forestry Research Centre, Swedish, 246
Form Tool Grinding Machine, Circular, A. S. Jones and Shipman Ltd., 861
Forming Machine, Cold Strip, Heenan and Froude, Ltd., 48
Forschungshefte fur Schiffbau und Schiffsmaschinenau, "Schiffstechnik", (Review, 123)
Forty-Seater Coach, Leyland Motors, Ltd., 392
Forward Scatter of Wireless Waves, 210
Foundation Engineering, Post-Graduate Courses in Highway and, (214)
Foundation Failures, Soil, 134
Foundations, Design and Construction of Engineering, F. D. C. Henry, (Review, 269)
Design and Practice, Elwyn E. Seelye, (Review, 619)
Foundries, Fuel Effciency in, (70)
Four-High Back-up-Driven Cold Strip Rolling Mill, Stanat Manufacturing Co., Inc., 601
Foxcote Reservoir, Binnie, Deacon and Gourley, (Letter, 695)
Reservoir, Homogeneous Earth-Fill Dam, 618
Fracture of a Commercial Copper at 250 Deg. Cent., Combined Stress Creep, A. E. Johnson, J. Henderson and V. D. Mathur, 261, 299
of Metals at High Temperatures, Creep and, (Review, 237)
of Steel Forgings, Brittle, 778
of Steels, Notes on the Brittle, Sulzer Brothers, 443
Frame Bender, Cold Hydraulic Ship, Scottish Machine Tool Corporation Ltd., 520
Buildings, Design of Multi-Storey Steel, (Report, 252)
on its Plastic Collapse Load, Effect of Distortion of a Stiff-Jointed, J. W. H. King and D. E. Jenkins, (Letter, 20) ; M. R. Horne, (Letter, 87)
Slotting Machine, Locomotive, 22
France, British Germanium Power Rectifier Installation in, (286)
Free Piston Compressor, Performance Characteristics of, B. W. Martin, 4
Piston Gas Generators, I.N.A., (868)
Radicals at Low Temperatures, Storage, 828
Trade Area, European, 560 ; (Leading Article, 641), 672
Trade Area, European, and British Industry, 663
Freezing, Pulsations and Evolutionary Progression in the Long-Period Variable Stars, Atmospheric, (Report, 131)
French Locomotive Experiences, Further, E. H. Livesay, 188, 221, 256, 292, 324, 366, 400, (Letters, 368, 402, 474, 582)
Railway Electrification, 490
Railways, Car-Sleeper Expresses, (657)
Frequency Calculations, Practical Solution of Torsional Vibration Problems : Vol. I, W. Ker Wilson, (Review, 52)
Response, R. Oldenburger, (Review, 52)
Test for Detecting Real Changes, Stafford Beer, 798
Friar's Wash Water Scheme, (530)
Frictional Parts from "Teflon" Fibre, Fabrication of, E. I. du Pont de Nemours and Co., 32
Front-Mounted Mowing Machine, Bomford Brothers, Ltd., 342
Fuel and Food, An Equation of, (Leading Article, 426) ; Hugh Nicol, (Letter, 510)
Cell, High-Pressure Hydrogen-Oxygen, F. T. Bacon and J. S. Forrest, 93
Efficiency Exhibition, 483
Efficiency in Foundries, (70)
Elements for Nuclear Reactors in America, Fabrication, 751, 788
Filters, Aviation, British Petroleum Company, (374)
for Gas Turbine, Coal Tar as, Crittall Manufacturing Co., Ltd., 153
Oil Calculator, Fina Petroleum Products Ltd., (602)
Oil Supplies, 785
Restrictions and Employment, 862
Statistics, 206
Full Employment, Maintaining, 135
Scale Testing Station for Tall Structures, Stewarts and Lloyds Ltd., 821
Fully Automatic Multi-Storey Garage, Proposal for, Griggs and Son, Ltd., 607
Funds for the Iron and Steel Board, 311
Furnace Assessment, Blast, Studies, J. M. Ridgion and A. M. Whitehouse, 800
Blast, Blower, Axial, Sulzer Brothers Ltd., 783
Blast, Measurement of Gas Transit Times, T. W. Johnson, 800
Blast, Automatic Stock Level Control, I. Kjellman and K. Gronblad, 800
Elements, Electric, Morgan Crucible Co., Ltd., (904)
Further Expansion at Imperial College, (Leading Article, 533)
Further French Locomotive Experiences, E. H. Livesay, 188, 221, 256, 292, 324, 366, 400, (Letters, 368, 402, 474, 582)
Future and Professional Engineers, J. G. Orr, 693
Farnborough and the, (Leading Article, 321)

G

Ganga Bridge, The, 62
Garage, Proposal for a Full Automatic Multi-Storey, Griggs and Son, Ltd., 607
Garden Party, Aeronautical, 84
Garry and Moriston Schemes, North of Scotland Hydro-Electric Board, 468, 503, 545, 577, 611, 647
Gas-Cooled Reactors for Power Production, Development, R. V. Moore, 881
Gas Engines, Diesel and High Compression, Edgar J. Kates, (Review, 53)
Generators, Free-Piston, I.N.A., (868)
Grid, East Anglian, (165)
Industry, Italian Oil and, V. S. Swaminathan, 313, 344
Industry, Annual Report of the Gas Council, 522
Industry Statistics, Gas Council, 170
In Industry Exhibition, (742)
Liquefied Petroleum, in Bulk for Industries in South Africa, 748
Prices, 28
Production Plants, (Patent, 639)
Surplus Refinery Gas, 147
Transit Times in a Blast Furnace, Measurement, T. W. Johnson, 800
Trials, Producer, 238

GAS TURBINES

Aircraft Gas Turbines, C. W. Smith, (Review, 53)
Coal Tar as Fuel for Gas Turbine, Crittall Manufacturing Co., Ltd., 153
Conditions of Failure in some Turbine Diaphragm Blades, K. H. Khalil, 78
Diesel and High Compression Gas Engines, Edgar J. Kates, (Review, 53)
Gas Turbine Developments in Aeronautics, A. W. Morley, 16
Turbine-Driven Auxiliary Electric Power Unit for Aircraft, Solar Aircraft Co., 66
Turbine Engines, D. Napier and Son, Ltd., 333
Turbine Pumping Set, (546)
Turbine at Sea, (Leading Article, 534)
Turbines for Australia, 267
German Industrial Gas Turbine, Gutehoffnungshutte A.G., 65
Heat Engines, A. C. Walshaw, (Review, 21)
Patents, 35, 72, 107, 287, 531, 567, 679, 869
Performance Characteristics of Free Piston Compressor, B. W. Martin, 4
Criteria of Gas-Turbine Combustion Chambers, D. B. Spalding, (Review, 550)
Thrust Reversers, Rolls-Royce, Ltd., 333

Gas, Use of Natural, in Scotland, 835
Gasification of Coal Underground, 873
Gases, One-Dimensional Transient Flow in a Pipe with Two, R. S. Benson, 687
Gate Valves for General Purposes, Copper Alloy, (B.S.I., 36)
Gauge, Vacuum, Pulsometer Engineering Co., Ltd., 205
Guide Ropes, Oiler for Mine, (868)
and Tool Exhibition, (172)

and Tool-Makers' Association, Specimen Pension Schemes, (132) ; Gauge and Tool Exhibition, (172)
Gear, British-Caprotti Valve, Standard Class "5" Locomotives, 708
Change Control, Electrical, C.A.V. Ltd., 470
Grinder, Spur, Stuart Davis, Ltd., 10
Grinding Machine, Spur Tooth, Gear Grinding Co., Ltd., 44
Helicopter Flotation, (132)
Hobbing and Shaving Machine, Automatic Cycle, David Brown Machine Tool Division, 926
Hobbing Machine, High Precision, W. E. Sykes, Ltd., (566)
Large, Involute and Helix Tester, W. Ferd Klingelnberg Sohne, 561
Standards, H. H. Broughton, (Letter, 652) ; A. M. Gunner, (Letter, 694) ; Thos. H. O'Beirne, (Letter, 652) ; G. Weston, (Letter, 734)
Standards Wanted, Are ? (Leading Article 653)
Gear-Teeth, Calculation of Backlash between, W. A. Tuplin, 190 ; H. E. Merritt, (Letter, 438) ; W. A. Tuplin, (Letter, 510), A. M. Gunner, (Letter, 734)
Gearbox, "Hydramatic", Rolls-Royce Ltd., 552
Gearboxes, Automatic Control for Power operated Epicyclic, Self-Changing Gears Ltd., 470
Geared Press, 100-Ton Open-Front, Hordern, Mason and Edwards, Ltd., 49
Gearing, Tooth, and Research, S. A. Couling, 915
Gears ? Whither British Standards for, H. E. Merritt, 547
General Purposes, Copper Alloy Check Valves for, (B.S.I., 36)
Purposes, Copper Alloy Gate Valves for, (B.S.I., 36)
Generale des Vibrations, Dynamique, Y. Rocard, (Review, 269)
Generating Sets, 550MW, for C.E.A., 797
Generation, Nuclear Power, Place of Calder Hall Reactor, Sir Christopher Hinton, 726
Generator, Turbo-, with Water-Cooled Stator Windings, Metropolitan-Vickers Electrical Co., Ltd., 854
Generators, Industrial R.F., Triode for, Mullard Ltd., (754)
Small Packaged Steam, J. Stone and Co. (Deptford), Ltd., 277
Steam, (Patents, 35, 180, 387, 459, 495, 639, 717, 933
Geoelektrische Bestimmung von Schichtgrenzen eines tertiaren Plateaus mit Quartarbedeckung, M. Weber, (Review, 305)
Geometry, Engineering Drawing and, R. P. Hoelscher and C. H. Springer, (Review, 197)
Geophysical Year, U.S. Earth Satellite Programme for the International, 247
Georges Bank in the Atlantic Ocean, U.S. Air Force Radar Station, 635
German Chemical Industry, 928
Commercial Vehicle Plant, Volkswagen, 675
Engineer's Meetings, Forthcoming, 209
Export Competition, British and, 202
Industrial Electricity Production, 675
Industrial Gas Turbine, Gutehoffnungshutte A.G., 65
Iron and Steel, 281
Locomotives, West, 65
Long Distance Radio, Fifty Years, 712
Machine Tools, Reference Manual of, (Report, 252)
Metal Goods Industries, Equipment of, 314
North, Experimental Reactor, 928
Plastics, 454
Railway Developments, 490
Reactor, First, Munich Technical College, 65
Scrap Consumption, 900
Shipbuilding, West, 102
Standards in Translation, 675
Steel Works, British Engineers' Visit, 928
Super Tankers, 675
Tanker Line, 209
Tin Conference, 863
Germanium Power Rectifier Installation in France, British, (286)
Germany, Growth of Urban Populations, 712
Technical Judges in, 280
Radioactivity Measurements, 787
Germiston, New Telephone Equipment Factory at, 63
Gewlo Dam, New, 172
Glasgow's West Main Waterworks, Inauguration, 427
Glass Insulator Laboratory, High Voltage, Pilkington Brothers Ltd., 658
Reinforced Plastic Lifeboat, Woodnutt and Co., Ltd., 376
Reinforced Plastic Water Tanks, Microcell Ltd., 737
Glider, Motorised, Martin Neulen K.G., 454
Glockner-Kaprun Hydro-Electric Scheme, 379, 417, 453
Glossary of Terms for Concrete and Reinforced Concrete, (B.S.I., 805)
of Terms Used in Industrial High-Frequency Induction and Dielectric Heating, (B.S.I., 544)
Gold Coast Road Association, Formation, (286)
Good Managers in Industry, Importance of, (Leading Article, 74)
Goods Engine, Eight-Wheeled, 119
Household, Quality Tests, 381
Industries, Equipment of German Metal, 314
Vehicles, "Thames", Ford Motor Co., Ltd., 430
Wagon, Two-Way Lifting and Tipping, Siegener Eisenbedarf A.G., (S.E.A.G.), 30
Government Stocks of Copper, (106)
Grabbing Crane, 7½-Ton, Stothert and Pitt, Ltd., 856
Grader, Motor, Equipped with Torque Converter, Le Tourneau-Westinghouse Company, 931
Graduates and Cost Accountancy, Commerce, (142)
Opportunities for, (34)
Granular or Powdered Materials, Rotary Cooler for, Dunford and Elliot Process Engineering Ltd., 897
Graphite Heat Exchangers, Powell Duffryn Carbon Products Ltd., 383
Graphs, Automatic Train, L. Ericsson, 674
Greases, Industrial, Rocol Ltd., (932)
Great Britain, 300MW Nuclear Power Stations, 891
Britain, Radioactive "Waste" for Deep Therapy, 607
Clock for Cathedral, 51
Egg Bay Bridge Superstructure, Erection of, Bethlehem Steel Co., 317
North Road Improvements, 219
Grey Iron Castings, (B.S.I., 921)
Grid, East Anglian Gas, (165)
Grinder, Automatic Internal, Stuart Davis, Ltd., 10
Combined Hydraulic Tailstock and Wheel Truing Equipment for Cylindrical, John Lund, Ltd., 9
Four-Head Continuous, Lumsden Machine Co., Ltd., 46
Hydraulic Surface, Gaston E. Marbaix, Ltd., 45
Spur Gear, Stuart Davis, Ltd., 10
Wet Belt, Taylor Tools and Supplies Ltd., (638)
Worm and Thread, Stedall Machine Tool Co., Ltd., 46
Grinding Machine, Carbide Tool, Stedall Machine Tool Co., Ltd., 46
Machine, Circular Form Tool, A. A. Jones and Shipman Ltd., 861
Machine, Cylindrical, Myford Engineering Co., Ltd., 708
Machine, Face, Buck and Hickman, Ltd., 8
Machine, Shaft, Gear Grinding Co., Ltd., 44
Machine, Spur Tooth Gear, Gear Grinding Co., Ltd., 44
Screening and Filtering Equipment, Test House for, International Combustion, Ltd., 166
Spindle, Precision Internal, Reilly Engineering Ltd., 519
Grit-Stone Quarry, Electrification of a Welsh, Anglo-American Asphalt Co., Ltd., 95
Growth of Urban Populations in Germany, 712
Guide Ropes, Oiler for Mine Gauge, (868)
Guided Missiles and Rockets, International Congress, 899
Missiles, Fairey Aviation Co., Ltd., 333
Missiles, International Congress on, 314
Gyroscopic Flight Instruments, Aircraft, (Review, 619)

H

Habitability, Improved, Environmental Aspects —U.S. Warships, 745
Hail Resistance, 172
Hammer, Electric High-Frequency Power Drill, Robert Bosch G.m.b.H., 599
Hampshire, Langstone Bridge, 377
Hand Brake, Lockheed Transmission, Automotive Products Co., Ltd., 470
Handbook on Belt Conveyor Design, (Review, 269)
of Fastening and Jointing Metal Parts, V. H. Laughner and A. D. Hargan, (Review, 53)
of Hardwoods, (Review, 21)
Materials, George S. Brady, (Review, 21)
Handling Equipment, Heavy Tool and Die, Matling Ltd., and Talbot-Ponsonby and Co., Ltd., (566)
in Industry, Materials, 721
Harbour Extension, Newhaven, 696
Hard Drawn, Round, Brass Wire for Springs, (B.S.I., 861)
Hardening of Austenitic Stainless Steels, 437
Equipment, High-Frequency Vertical, Birlec, Ltd., 45
Machine, Crankshaft, Radio Heaters Ltd., 485
Hardness Testing, Micro-Indentation, B. W. Mott, (Review, 20)
Hardwoods, A Handbook of, (Review, 21)
Harrows, Disc, E. H. Bentall and Co., Ltd., 816
Harvard University, 6,000MeV Synchroton Particle Accelerator at Cambridge, 32
Harvesting of Sugar Beet, Mechanical, British Sugar Corporation, 596
Harwell, "Dido" Research Reactor, 812
Reactor Conference at, U.K. Atomic Energy Authority, 291
Reactor Conference, 805
Reactor School, 355
Hawaii, Dedication of Mauna Loa Observatory, 601
Head, Automatic "Argonaut" Welding, British Oxygen, Ltd., 59
Manufacture of a Whales, David Budworth Ltd., 896
for use on Transfer and Special Purpose Machines, Unit, Brooke Tool Manufacturing Co., Ltd., 7
Headlamp, Improved Car, 489
Headworks, Concept of Irrigation Diversion, N. V. Knight, (Letter, 304)
Heart and Lung Machine, Artificial, New Electronic Products Ltd., 744
Heat Engines, A. C. Walshaw, (Review, 21)
Exchanger Surfaces, Shot Cleaning for, Keith Blackman Ltd., (678)
Exchangers, Calder Hall, 841
Exchangers, Graphite, Powell Duffryn Carbon Products Ltd., (830)
Exchangers, (Patent, 567)
Transfer to a Fluid Flowing in a Tube within a Radiating Enclosure, C. D. Weir, (Letter, 780)
Transfer Panels, Imperial Chemical Industries Ltd., 521
Treated Polystyrene, Water Sorption in, (Report, 252)
Heater, 7kW Induction, General Electric Co., Ltd., 240
Heaters, Radiant, Hanovia, 743
Heating, Air, Vaporheat Ltd., 671
in Europe, Domestic, 281
Glossary of Terms Used in Industrial High-Frequency Induction and Dielectric, (B.S.I., 544)
Off-peak Electrical, Thermodare (Great Britain) Ltd., 483
Practice, Induction, D. Warburton-Brown, (Review, 887)
Heavy-Oil Engine Working Costs and Performance, (Leading Article, 908)
Helicopter Flotation Gear, (132)
Progress, (178)
Helix and Involute Tester for Large Gears, W. Fred Klingelnberg Sohne, 561
Help for Technical Students, Financial, (34)
Heysham-Belfast Service, New Turbine Steamers for, G. W. Tripp, 307
High-Altitude Research Missile, Lightweight, 753
High Dam, Aswan, 112
Frequency Induction and Dielectric Heating, Glossary of Terms used in Industrial, (B.S.I., 544)
Marnham Power Station, Central Electricity Authority, 240
Nickel Alloys, Welding of, Henry Wiggin and Co., Ltd., (34)
Precision Gear Hobbing Machine, W. E. Sykes, Ltd., (566)
Pressure Hydrogen-Oxygen Fuel Cell, F. T. Bacon and J. S. Forrest, 93
Pressure Test Standards, Calibration of, 713
Purity Chromium, 303
Speed Launch, Experimental, Vosper, Ltd., 26
Speed Photography Congress, (15)
Temperature Alloy, (286)
Temperatures, Transformer Coolant for, 168
Voltage Glass Insulator Laboratory, Pilkington Brothers Ltd., 658
Highway Engineering, Summer School in, (167)
and Foundation Engineering, Post-Graduate Courses in, (214)
History, American and other Contributions to Engineering, 85
Bibliography of the Art of Turning and Lathe and Machine Tool, S. G. Abell, J. Leggat and W. G. Ogden, (Review, 269)
British Civil Engineering Contracting Industry : Illustrated, (Review, 21)
and Development of Motor Cycles, C. F. Caunter, (Review, 474)
in Pictures, Aeronautical, (Review, 781)
Hitch, Automatic Pick-Up, Ford Motor Co., Ltd., 23
Hobbing Machine, Automatic Spline, Elgar Machine Tool Co., Ltd., 47
Machine, High Precision Gear, W. E. Sykes, Ltd., (566)
and Shaving Machine, Automatic Cycle Gear, David Brown Machine Tool Division, 926
Holes, Measurement of Small, (Report, 288)
with Rounded Corners, Angled, 246
Study of Underground Water Movements by Measurements in Drill, Gordon Newstead and J. C. Jaeger, 76
Twin-Drill Rigs for Trench Blasting, Climax Rock Drill and Engineering Works, Ltd., (702)
Home Demand, British Steel, 170
Homogene, Sur la Turbulence Spatialment, (Report, 413)
Homogeneous Earth-Fill Dam of the Foxcote Reservoir, 618
Honing Machine, Gaston E. Marbaix, Ltd., 45
Hooke, Robert, Margaret 'Espinasse, (Review, 849)
Hopper Loader for Injection Moulding Machines, Fawcett Finney Ltd., (669)
Horizontal Bath Production Furnace, Wild-Barfield Electric Furnaces, Ltd., 44
Boring, Facing and Milling Machine, Woodhouse and Mitchell, Ltd., 48
Milling Machine, George Cohen, Sons and Co., Ltd., 10
Toolroom Boring Machine, H. W. Kearns and Co., Ltd., 7
Horsepower Diesel Engine, Medium, 208
Hoses and Tubes, Flexible, Quarterly Magazine, Compoflex Co., Ltd., (699)
Hostility of Certain Engineers to the Press, 606
Hot Air Engine, 1881, 886
Gas Engines and Refrigerating Plants, (Patent, 459)
Rolled Steel, Silicon and Aluminium in, 778
Hours and Average Earnings, 488
Engineering Wages and, 28
of Labour, Time Rates of Wages and, 28
Staggering of Working, 825
House for Grinding, Screening and Filtering Equipment, Test, International Combustion, Ltd., 166
Household Goods, Quality Tests, 381
Houseless Board of Works, 534
Houses, Turbine and Pumping, 235
Housing Congress, Twenty-Third International Town Planning and, 65
How to Avoid Building New Roads, D. L. Reeves, (Letter, 694) ; G. Lyon, (Letter, 810)
Hull Structures, J. Turnbull, (932)
Human Problems of Industrial Communities, 39
Relations in Industry, 862
Hundred Years' Omnibus Operation, One, London General Omnibus Co., 89
Hydraulic Copying Milling Machine, Automatic, Dowding and Doll, Ltd., 44
Diversion Works on Alluvial Rivers, Cut-offs in Modern, S. Leliavsky, 184, 228
Loader, E. Boydell and Co., Ltd., 737
Loading Shovel, F. E. Weatherill Ltd., 737
Machinery, (Patents, 603, 831)
Open-Side Planing Machine, Butler Machine Tool Co., Ltd., 11
Pipe Coupling, Kay and Co., (Engineers) Ltd., 377
Power Pack, Keelavite Rotary Pumps and Motors, Ltd., 50
Self-Aligning Seating, A. C. Carter, 232
Ship Frame Bender, Cold, Scottish Machine Tool Corporation Ltd., 520
Surface Grinder, Gaston E. Marbaix, Ltd., 45
Tailstock and Wheel Truing Equipment for Cylindrical Grinder, Combined, John Lund, Ltd., 9
Hydraulically-Operated Feed, Band Resaw with, Stenners of Tiverton Ltd., 591
Operated Truck-Mounted Crane, Chamberlain Industries, Ltd., 412
Hydraulics Research Station, Research in Loose-Boundary Hydraulics, 666
Hydrodynamic Lubrication in Parallel Sliding, Theory of, H. Blok, (Letter, 304) ; W. Lewicki, (Letter, 336)
Hydrodynamics, Cavitation in, (Review, 582)

HYDRO-ELECTRIC

Finlarig Power Station, North of Scotland Hydro-Electric Board, 25
Garry and Moriston Schemes, North of Scotland Hydro-Electric Board, 468, 503, 545, 577, 611, 647
Glockner-Kaprun Hydro-Electric Scheme, 379, 417, 453
Historical Review of British Hydro-Electricity, J. Guthrie Brown, 499
Hydro-Electric Power in Ontario, 535
Kariba Dam, (Leading Article, 110)
Hydro-Electric Scheme on the Zambesi River, 155
Priest Rapids Dam in Washington, Construction, 565
River Lech Hydro-Electric Scheme, Bayerische Wasserkraft-werke A.G., 173
Rock Tunnelling on the Ume River, 787
Swiss Water Power, 786
Utilisation of Swiss Hydro-Electric Power, 599
Visit of British Engineers to Russian Hydro-Electric Schemes, 535
Volta River Project, 112
Ybbs-Persenbeug Hydro-Electric Scheme on the Danube, 100
Hydrogen-Oxygen Fuel Cell, High Pressure, F. T. Bacon and J. S. Forrest, 93
in Steel, 120, 779
Hydro-Pneumatic Carriage, 404

I

Ice, Use of Compressed Air Against, Atlas Copco, 900
Ignition Equipment for Oil Burners, High-Energy Spark, Foster Transformers, Ltd., 310
Illustrated History, British Civil Engineering Contracting Industry, (Review, 21)
Illustration, Courses in Technical, (Leading Article, 182)
Technical, Conference, (716), 797
Imperial College, Further Expansion, (Leading Article, 533)
Importance of Good Managers in Industry, (Leading Article, 74)
Imports of Papermaking Materials, (214)
Swiss Car, 281, 750
Impounding Station at Mersey Docks, Pumping Plant for the Wallasey, 129
Impregnation in Modern Powder Metallurgy, 436
Improved Turret Clock, 337
Improvement at Portsmouth, Road, 291
Scheme for the River Lee Navigation, 219
Schemes for Newport and Barry Docks, 797
Improvements, Great North Road, 219
Metropolitan Line, (60)
on the Natal Main Line, Doubling and, 134
Impulse Tests on 275kV Super-Grid Transformer, Bruce Peebles and Co., Ltd., 241
Inauguration of the Daer Water Supply in Lanarkshire, 592
of Glasgow's West Main Waterworks, 427
Inclinometer, Remote-Reading, Maihak A.G., 490
Index, Textile Machinery, (Review, 667)
Indexing Machine, Basic Automatic, Bristol Repetition Ltd., 450

INDIAN ENGINEERING NEWS

Atomic Energy in India, 62
Durgapur Iron and Steel Works, 672
Ganga Bridge, The, 62
India's Second Five-Year Plan, 171
Warora Colliery, Central India, 584

Indicator, Attitude, Kelvin and Hughes Ltd., 364
Nucleonic Level, Baldwin Instrument Co., Ltd., 630
Stand, Suction-Clamped Test, Hommelwerke, 30
Individual Axle Drives for Electric Locomotives, Siemens-Schuckertwerke A.G., 900
Inductances, Metal Transfer between Palladium and Silver Contacts at Low, J. Riddlestone, (Review, 121)
Induction and Dielectric Heating, Glossary of Terms Used in Industrial High-Frequence, (B.S.I., 544)
Heater, 7kW, General Electric Co., Ltd., 240
Heating Practice, D. Warburton-Brown, (Review, 887)
Industrial Boiler, All-Fuel, Societe Pradairol Poujradieu and Cie, 562
Communities, Human Problems of, 39
Designing, 451
Disputes, 343
Dusts, Technical Explosion Investigations of, E. Wehner, (Review, 159)
Efficiency, 488
Electricity Production, German, 675
Equipment Display, 341
Establishment for Nuclear Power Development, An, G.E.C. Simon-Carves Atomic Energy Group, 271
Films, 631
Films, Mobil Oil Co., Ltd., (678)
Gas Turbine, German, Gutehoffnungshutte A.G., 65
Greases, Rocol Ltd., (932)
High-Frequency Induction and Dielectric Heating, Glossary of Terms, (B.S.I., 544)
Mower, Mid-Mounted, Massey-Harris-Ferguson, Ltd., 23
Nuclear Facilities Works in Virginia, Babcock and Wilcox Co., 139, 176
Photography, 174
Production, 488
R.F. Generators, Triode for, Mullard Ltd., (754)
Research Laboratory, British Oxygen Research and Development Ltd., 517
and Scientific Research in South Africa, 415
Temperature-Detecting Elements and Pockets, (B.S.I., 180)
Triode Valves, General Electric Co., Ltd., (754)
Welfare Society, Human Relations in Industry, 862

Industries, Equipment of German Metal Goods, 314
Fair, British, 1957, 785
Fair, Utrecht, Royal Netherlands, 65
in South Africa, Liquefied Petroleum Gas for, 748
Sweden's Forest Products, 281
Industry, British, and a European Free Trade Area, 663
Diesels in, R. A. Lister and Co., Ltd., (142)
Dispute, Report on the Steel, 311
Dispute, Steel, 61
Gas in, Exhibition, (742)
German Chemical, 928
Human Relations in, 862
Illustrated History, British Civil Engineering Contracting, (Review, 21)
Importance of Good Managers in, (Leading Article, 74)
Investment in Manufacturing, 597
Italian Oil and Gas, V. S. Swaminathan, 313, 344
Manpower in, 170
Materials Handling, 721
Methods of Sampling Water Used, (B.S.I., 776)
Methods of Testing Water Used in, (B.S.I., 144)
Necessity for Job Changing in, 135
Oil and, 332
and Prices, Private, 99
Redundancy in the Motor Vehicle, 99
Statistics, Gas, Gas Council, 170
Swiss Mechanical Engineering, 101
and the Technical Colleges, 463
and Trade Unions, Motor, (Leading Article, 217)
Labour Costs, 311
Information on Atomic Energy, Release of, 873
Exchange, Railway Technical, 562
Infra-Red Curing of Varnish and Lacquer on Photo-Lithographic Rollers, Metropolitan-Vickers Electrical Co., Ltd., 670
Ingots, Design of, for High Output in the Slabbing Mill, H. G. Jones, P. D. Dickerson and D. T. Steer, 765
Injection Moulding Machines, Hopper Loader for, Fawcett Finney Ltd., (669)
Injector Inspection, Simms Motor Units, Ltd., 265
Inquiry into the Dock Labour Scheme, 170
Inspecting Turbine Blades, Large-Capacity Projector, Optical Measuring Tools Ltd., 746
Inspection, Engineering, Testing and Measurement, H. C. Town, (Review, 511)
Injector, Simms Motor Units, Ltd., 265
Inspectorate, Factory, 99, 597
Inspector's Report, Factory, 825
Installation for Austria, Lubricating Oil, Shell Austria A.G., 346
Dingle Bank Boiler, Shell-Mex and B.P., Ltd., 132
in France, British Germanium Power Rectifier, (286)
of Large Radioactive Source, 900
Institute of Cost and Works Accountants, Commerce Graduates and Cost Accountance, (142)
of Fuel, Technical Meetings at Fuel Efficiency Exhibition, 483
of Marine Engineers, Marine Steam Turbine, A. W. Davis, (904) ; Presidential Address, Sir Donald F. Anderson, 499 ; Symposium on Fires in Ships, 670
of Materials Handling, Annual Dinner, 721
of Metals, Autumn Meeting, 523 ; Awards, (932) ; Discussion on Degreasing, (678) ; Metallurgical Reviews, 437
of the Motor Industry, (Leading Article, 426)
of Physics, Annual General Meeting, 183 ; Scientific Problems in Development of Nuclear Power, Sir John Cockcroft, 40
of Transport, Research and Road Traffic, Sir Charles Goodeve, 835 ; The State of the Ports, F. H. Cave, 522
of Welding, Lectures on Welding Structural Steelwork, (142)
of Wood Science, Formation, (602)
Institution of British Agricultural Engineers, National Diploma in Agricultural Engineering, (678) ; Power for Ploughing, D. R. Bomford, 556
of Civil Engineers, Conservation of Land, L. Dudley Stamp, 643 ; Conservation of Natural Resources, Mineral Resources, W. K. Jones, 499 ; Conserving the Expendable, Professor Jones, (Leading Article, 498) ; Conserving Water Resources, 571 ; Conversazione, 18 ; Post-War Development in the Coal-mining Industry, A. Young, H. A. Longden and B. L. Metcalf, 918 ; Presidential Address, H. J. F. Gourley, 649 ; Proceedings, 183 ; To Skid or Not to Skid, (Leading Article, 606)
of Electrical Engineers, Christmas Lecture, 759 ; Convention on Ferrites, 607 ; President Named, 85 ; World Telecommunications, Sir Gordon Radley, 507
of Engineers and Shipbuilders in Scotland Hull Structures, J. Turnbull, (932) ; James Watt Dinner, 549 ; Operation of a Modern Petroleum Refinery, J. G. Annan, (754) ; Some Aspects of Ship and Propeller Experiments, A. M. Robb, (638) ; "Some Observations on Local Vibration," A. J. Johnson and P. W. Ayling, (792)
of Locomotive Engineers, Presidential Address, J. F. B. Vidal, 427
of Mechanical Engineers, Annual Dinner, 571 ; Changing Nature of the Fatigue Problem, H. J. Gough, 359 ; Conferences on Clean Air, 463 ; Conference on Fatigue of Metals, 355, 359 ; Mechanical Breathing Machines, G. T. Smith-Clarke, 876, 911 ; The "Mechanicals" at Edinburgh, (Leading Article, 37) ; Meeting, 391 ; Motive Power on Sea and Land, T. A. Crowe, 580, 614 ; Portrait Unveiled, 873
of Mining Engineers, President Elected, (34)
of Naval Architects, Free-Piston Gas Generators, M. A. Augustin-Normand and M. Barthalon, (868) ; Papers, (602) ; Symposium on Fires in Ships, 670 ; Yacht Testing, (566)
of Production Engineers, Aircraft Production Conference, 744 ; Annual Dinner, 499
of Public Health Engineers, Some Problems in the Purification of Sewage, Mr. Sciver, 355
of Structural Engineers, Presidential Address, J. Guthrie Brown, 499
of Water Engineers, Emergency Procedures for Water Authorities, (70)
Institutions, Educational, Loan of Plutonium-Beryllium Neutron Sources, 715
Instrument for the Calibration of Torque Wrenches, Baldwin-Lima-Hamilton Corporation, 677
Design, Application of Spring Strips to, (Report, 359)
for Measuring Camber on Large Rolls, Optical, P. W. Harrison, 327
of Unit Construction, Block Signalling, 410
Instrumentation, Pneumatic, Negretti and Zambra Ltd., 463
Instruments, Aircraft Gyroscopic Flight, (Review, 619)
Measuring, Patents, 180, 495
and Methods for Surveys of Limited Extent, Surveying, P. Kissam, (Review, 336)
Insulating Materials, Classification of, (B.S.I., 320)
Insulation, Design of Electrical Apparatus Having Double, (B.S.I., 108)
and Sheath of Electric Cells, P.V.C., (B.S.I., 72)
Insulator Laboratory, High Voltage Glass, Pilkington Brothers Ltd., 658
Insulators for 380kV, Stemag Steatit-Magnesia Aktiengesellschaft, 64
Insurance, Pensions and National, 206
Inter-City Diesel Railcars, Western Region of British Railways, 164

INTERNAL COMBUSTION ENGINES

Automotive Diesel Engines, Four, Henry Meadows, Ltd., 405
Turbo-Charger, Simms Motor Units Ltd., 858
"Deltic" Engine, Development, C. D. Carmichael, 700
Diesel Engine, "2D", David Brown Industries Ltd., 737
Engine Mobile Training Equipments, F. Perkins Ltd., (808)
Engine, Small, R. A. Lister and Co., Ltd., 737
Engine Speed Increase, Davey, Paxman and Co., Ltd., (932)
Engine Starter, Storhaven Engineering Ltd., 740
Engines for Rail Traction, (Leading Article, 719)
Diesels in Industry, R. A. Lister and Co., Ltd., (142)
Distributor Pump for Diesel Engines, C.A.V., Ltd., 373
Engine Equipment, C.A.V. Ltd., (830)
Research, Annual Report, B.I.C.E.R.A., (480)
Heavy-Oil Engine Working Costs and Performance, (Leading Article, 908)
Inter-City Diesel Railcars, Western Region of British Railways, 164
Low-Power Marine Diesel Engines, Petters Ltd., 515
Medium Horsepower Diesel Engine, 208
Patents, 71, 215, 251, 287, 319, 351, 387, 531, 717, 755, 793, 869, 905, 933
Producer Gas Trials, 238
Pure Jet *v.* By-pass Engines, (494)
Rocket Power Plant, 117
Self-Contained Turbo-Chargers, Brush Electrical Engineering Co., Ltd., 57
Trials of Turbo-Charged Two-Stroke Marine Diesel Engine, Gebr. Sulzer A.G., 245
of Turbo-Charged Two-Stroke Marine Diesel Engine, Correction, (678)
Villiers Engine, 2,000,000th, Villiers Engineering Co., Ltd., (494)
Internal Grinder, Automatic, Stuart Davis, Ltd., 10
Grinding Spindle, Precision, Reilly Engineering Ltd., 519
Pressure Tests on Steel Cylinders, 620
International Airport, New York, Long Range Radar Installation, General Electric Co., 420
Astronautical Congress, 481
Autumn Fair at Utrecht, 454
Combustion, Fifth Symposium, (Review, 445)
Congress on Guided Missiles, 314
Congress on Rockets and Guided Missiles, 899
Exchange of Students, (716)
Exhibition, B.E.A.M.A. and the, (350)
Geophysical Year, U.S. Earth Satellite Programme for the, 247
Machine Tool Exhibition, 7, 43
Motor Show, 552, 585
Organisation for Standardisation, 157
Town Planning and Housing Congress, Twenty-Third, 65
Wrought Non-Ferrous Metals Council, 674
Interpretation von seismischen Refraktionsmessungen, Zur, M. Weber, (Review, 123)
Introduction to Electrostatic Precipitation in Theory and Practice, H. E. Rose and A. J. Wood, (Review, 550)
to Plasticity, Aris Phillips, (Review, 20)
to the Theory of Structures, W. Merchant and A. Bolton, (Review, 369)
Inventions, Atomic Energy, (214)
Inverted Bucket Steam Trap, Lancaster and Tonge Ltd., 487
Investigations of Industrial Dusts, Technical Explosions, E. Wehner, (Review, 159)
Investment in Manufacturing Industry, 597
Plant, Tube Investments Ltd., 747
Trends in Capital, 206
in Western Europe, Steel, 206
Involute and Helix Tester for Large Gears, W. Ferd Klingelnberg Sohne, 561
Measuring Machine, Gear Grinding Co., Ltd., 44
Iron-Cored Reactors, Flux Losses and Forces, (Report, 388)
Iron-Loss Tests on Transformers, (Report, 216)

IRON AND STEEL

Alloy Steels, 302
Bessemer Centenary, 120
Centenary Exhibition, (678)
Process, 290
British Engineers Visit to German Steel Works, 928
Steel Home Demand, 170
Brittle Fracture of Steel Forgings, 778
Chromium-Nickel Austenitic Steels, F. H. Keating, (Review, 21)
Cleaning Process for Castings, Castingite, Ltd., 25
Cleavage Strength of Steel, T. M. Noren, (904)
Continuous Casting of Steel Billets, United Steel Companies Ltd., 374
Corrosion of Steel, 303
Durgapur Iron and Steel Works, 672
European Coal and Steel Community, 598, 632
Fuel Efficiency in Foundries, (70)
Funds for the Iron and Steel Board, 311
German Iron and Steel, 281
Grey Iron Castings, (B.S.I., 921)
Hardening of Austenitic Stainless Steel, 437
Hydrogen in Steel, 120, 779
Internal Pressure Tests on Steel Cylinders, 620
Iron Castings Production, 311, 785
Ore Deposits Near Salzgitter, 346
and Steel, 99, 242
and Steel Prices, 898
and Steel Production, 414, 560, 747
Joint Iron Council, Annual Meeting, 672
Manganese Steel, (Review, 53)
Notch Ductile Steel for Bridges, (B.S.I., 195)
Notes on the Brittle Fracture of Steels, Sulzer Brothers, 443
Oxidation Resistant Silicon Aluminium Steels, (Report, 559)
Peace in the American Steel Industry, 420
Productivity, Iron and Steel Industry's, 631
Report on the Steel Industry Dispute, 311
Silicon and Aluminium in Hot-Rolled Steel, 778
Steel Billets, Blooms, Bars and Forgings, (B.S.I., 341)
Distribution and Stocks, 898
Experts Visit to Russia, (70)
Industry Dispute, 61
Investment in Western Europe, 206
making Since Bessemer, Sir Charles Goodeve, 329
Prices, 560
Surface Blisters on Steel, 121
Towards European Integration : First Results for Coal and Steel, (Report, 746)
Tubular Steel Dolphin, 599
Steel Tower, 599
Velindre Tinplate Works, Steel Company of Wales, Ltd., 28
World Steel Production, 170
and Steel Board's Annual Report, 414
and Steel Institute, Automatic Stock Level Control on Blast Furnaces, J. Kjellman and K. Gronblad, 800 ; Autumn Meeting, 765, 800 ; Design of Ingots for High Output in the Slabbing Mill, H. G. Jones, P. D. Dickerson and D. T. Steer, 765 ; Measurement of Gas Transit Times in a Blast Furnace, T. W. Johnson, 800 ; Recording Techniques for Rolling Mill Operation Studies, E. A. Chard, W. W. Hastings and D. F. Nettell, 765 ; Studies of Blast Furnace Assessment, J. M. Ridgion and A. M. Whitehouse, 800 ; Symposium on Powder Metallurgy, 1954, (Review, 653) ; Time Characteristics of the Slabbing Mill, H. G. Jones, D. T. Steer and P. D. Dickerson, 765 ; Wide-Strip Rolling and Sheet Finishing Equipment, H. H. Ascough, 765
Irradiated Plastic Tapes, Tube Investments Ltd., (494)
Irradiation Laboratory, 309
Laboratory, Dielectric, British Insulated Callender's Cables Ltd., 594
Irrigation Diversion Headworks, Concept of, N. V. Knight, (Letter, 304)
and Drainage, Congress on, 169
Problems, Modern Dewatering Methods in, S. Leliavsky, 114, 148
Scheme in Natal, 673
Scheme in Malaya, R. L. Akers and A. I. G. Robertson, 58
and Water Development in Northern Rhodesia, (422)
Isotopes, Measurement of Cutting Tool Performance with Radioactive, Alexander Duckham and Co., Ltd., 127
Issue of Construction Permits for Large-Scale Nuclear Power Stations, U.S. Atomic Energy Commission, 175
Italian Concrete Structures, (422)
Oil and Gas Industry, V. S. Swaminathan, 313, 344
Warship "Duilio", 654

J

James Nasmyth 1808-1890, J. F. W. Bryon, (Letter, 236)
Jane's All the World's Aircraft, 1956-57, 887
Fighting Ships, 1956-57, (Review, 848)
Japan, American Particle Accelerator, (903)
Jet Airliner, de Havilland Aircraft Co., Ltd., (709)
Jig Boring Machine, Stedall Machine Tool Co., Ltd., 46
and Fixture Design, P. S. Houghton, (Review, 583)
Job Changing in Industry, Necessity for, 135
Johannesburg Station, New, 134
John Loudon MacAdam, Bicentenary of, 1756-1836, 395
Joint Consultation on British Railways, 279
Iron Council, Annual Meeting, 672
Jointed Frame on its Plastic Collapse Load, Effect of Distortion of a Stiff, J. W. H. King and D. E. Jenkins, (Letter, 20)
Jointing Metal Parts, Handbook of Fastening and, V. H. Laughner and A. D. Hargan, (Review, 53)
and Repairing Compound, Plastic Steel, (303)
Jubilee of British Brown Boveri, Ltd., 3
Number, "The Shipbuilder and Marine Engine-Builder", (106)
Judges in Germany, Technical, 280
Junction Rectifiers, Silicon, British Thomson-Houston Co., Ltd., 484
June, United Kingdom Trading Figures for, 135

K

Kariba Dam, (Leading Article, 110), 196.
Hydro-Electric Scheme on the Zambesi River, 155
Kemsley, Newsprint Mill, Bowater Paper Corporation Ltd., 851, 888
Kerosene Burning Appliances, Shell Petroleum Co., Ltd., (458)
Koedoespoort Mechanical Workshops, 134

L

Laboratories, Crane Manufacturer's, Steele's Engineering Products, Ltd., (164)
Laboratory, Chemical Research, Open Days, 509
Civil Engineering Firms, George Wimpey and Co., Ltd., (558)
Dielectric Irradiation, British Insulated Callender's Cables Ltd., 594
High Voltage Glass Insulator, Pilkington Brothers Ltd., 658
Industrial Research, British Oxygen Research and Development Ltd., 517
Irradiation, 309
Mechanical Engineering Research, 447
Oil Test, 56 ; P. W. Harrison, (Letter, 122)
for Packaging Research, Swedish, 30
Railway Soil Mechanics, (157)
Use, Rubber Tubing and Bungs, (B.S.I., 805)

LABOUR MATTERS

Aspirations of School Leavers, 451
Automation and Labour Problems, 279
Average Earnings and Hours, 488
Careers for Engineers in Railway Service, (830)
Changes in Wage Rates, 28, 825
Clyde Shipyard Strike, 343, 414
Coal Mining Disputes and Absenteeism, 488
Contracts of Service, 631
Cost of Labour Turnover, 672
Dock Labour, 522
Employment in 1955, 135
and Fuel Restrictions, 862
and Unemployment, 61, 242, 378, 560, 710, 862
Engineering Wages, 279, 414, 825
Wages and Hours, 28
Human Problems of Industrial Communities, 39
Relations in Industry, 862
Industrial Disputes, 343
Industry's Labour Costs, 311
Inquiry into the Dock Labour Scheme, 170
Maintaining Full Employment, 135
Manpower in Industry, 170
Men, Management and Metal, 597
Necessity for Job Changing in Industry, 135
Never be Short of Labour, (Leading Article, 289) ; W. F. Wright, (Letter, 550) ; E. G. Semler, (Letters, 619, 781) ; L. Gilling Smith, (Letter, 653) ; J. F. Perrin, (Letter, 695)
Old Skills in New Settings, 378
Peace in the American Steel Industry, 420
Pensions and National Insurance, 206
for Professional Engineers, 825
Prices and Wages, 414
Railway Wages, 61, 597, 862
Re-adaption and Re-employment of Workers, (Report, 926)
Scientific and Engineering Manpower, 607
Selection and Training of Foremen in Europe, Sven Grabe and Paul Silberer, (Review, 924)
Staggering of Working Hours, 825
Steel Industry Dispute, 61; Report 311
Time Rates of Wages and Hours of Labour, 28
Trades Union Congress, 378
Wage Claims, 631
Restraint, 451
Wages, 343
and Labour Relations, 747
and Productivity, 488
Work Study in Ordnance Factories, 488
Lacquer and Varnish on Photo-Litho-Graphic Rollers, Infra-Red Curing, Metropolitan-Vickers Electrical Co., Ltd., 670
Lake Constance Water Supply Scheme, 102
Lamp Batteries, Signalling, (34)
Lanarkshire, Inauguration of Daer Water Supply, 592
Lancashire, Diesel and Electric Locomotive Building in, English Electric Co., Ltd., 413
Land, Conservation, L. Dudley Stamp, 643
and Sea, Motive Power on, T. A. Crowe, 580, 614
Langstone Bridge, Hampshire, 377
Lathe, Contouring, Gaston E. Marbaix, Ltd., 45
Copy-Spinning and Flow-Forming, Elgar Machine Tool Co., Ltd., 47
Copying, Dowding and Doll, Ltd., 44
Duplex Wheel, 337
Heavy-Duty Roughing Roll, Maschinenfabrik Herkules, 30
for High-Speed Production, Crowthorne Engineering Co., Ltd., 48
and Machine Tool History, Bibliography of the Art of Turning and, S. G. Abell, J. Leggat and W. G. Ogden, (Review, 269)
Multi-Spindle Automatic, 207
Profile Facing, Charles Churchill and Co., Ltd., 43
22in. Swing Heavy-Duty, Denham's Engineering Co., Ltd., 50

Vertical Spindle Chucking, Charles Churchill and Co., Ltd., 43
Ward-Leonard Control of Veneer Peeling, Tyne Timber and Veneers, Ltd., 96
Lattices, Direct Observation of Defects in Crystal, 6
Launch, Experimental High Speed, Vosper, Ltd., 26
of "Mayflower 11", J. W. and A. Upham Ltd., 427
Launches and Deliveries, Swedish, 674
and Trial Trips, 36, 72, 144, 180, 216, 320, 352, 496, 532, 568, 604, 716, 870, 906, 934
Law Dealing with Trade Effluents, 672
Leaded Brass Strip for Use in Clocks and Watches, (B.S.I., 861)

LEADING ARTICLES

Ad Astra, 389
Are Gear Standards Wanted ?, 533
Aswan and Suez, 146
A.T.C. and the Milton Derailment, 354
Automobile Characteristics, 720
Britain's Neglect of Transport, 2
By-Way in Engineering Design, A, 253
Clean Air, 462
Clearing the Canal, 872
Common European Market, 497
Conclusions from Road Research, 182
Conserving the Expendable, 498
Courses in Technical Illustration, 182
Cromwell Road Report, 110
Diesel Engines for Rail Traction, 719
Engineers and Physicists, 290
European Free Trade Area, 641
Farnborough and the Future, 321
Food and Fuel, An Equation of, 426
Further Expansion at Imperial College, 533
Gas Turbine at Sea, 534
Heavy-Oil Engine Working Costs and Performance, 908
High-Speed Lightweight Rolling Stock in the United States, 218
Importance of Good Managers in Industry, 74
In Commemoration of Bolton, Watt and Murdock, 390
Kariba Dam, 110
Locomotive Superheater, 796
London Omnibus Centenary, 109
Man Must Measure, 834
"Mechanicals" at Edinburgh, The, 37
Middle Eastern Mess, 682
Motive Power for British Railways, 254
Motor Industry and Trade Unions, 217
Never be Short of Labour, 289
Nuclear Power, 757
Power Development, 73
Oil Economic and Nuclear Power, 833
Our Roads are Perilous, 353
Out of Calder Hall, 871
Plea for a Naval Building Programme, 570
Progress Report on Nuclear Power, 145
Railway Prospects, 605
Signalling Prospects, 907
Reappraisal of British Defence Policy, 38
Reflections on the Motor Show, 569
Reorganising Electricity Supply, 795
Royal Agricultural Society, 872
Rural Engineers, 642
Ride, A, 1
Significance of Calder Hall, 461
Technology, A Many-Sided, 426
Their Lordships Discuss Education, 758
"This Really Disgusting Process", 390
To Skid or Not to Skid, 606
Too Much Talk and Colcutt, 181
Traffic Arteries in Large Towns, 425
Western Engineers and Russia, 681
Work of B.I.S.R.A., 322
World Power, 1

Leathers, Dimensions of Condenser Rubbing, (B.S.I., 36)
Leavers, School, Aspirations of, 451
Lech Hydro-Electric Scheme, River, Bayerische Wasserkraft-werke A.G., 173
Lecture Courses, Civil Engineering, (602)
Lectures on Welding Structural Steelwork, (142)
Lee Navigation, Improvement Scheme for the River, 219
Lenses, Thin, Aberrations of, H. H. Emsley, (Review, 735)
Let's Forget the Cycloid Tooth, W. A. Tuplin, 836

LETTERS TO THE EDITOR

Aerothermopressor, M. J. Gercke, 305 ; Ascher H. Shapiro, 510
Aircraft Procurement, F. R. Banks, 619
All-Weather Connectors for Aluminium-to-Copper Connectors, J. R. Harding, 402
Calculation of Backlash Between Gear-Teeth, H. E. Merritt, 438 ; W. A. Tuplin, 510 ; A. M. Gunner, 734
Concept of Irrigation Diversion Headworks, N. V. Knight, 304
Criteria of Yield, D. G. Sopwith and J. L. M. Morrison, 810
Cut-offs in Modern Hydraulic Diversion Works on Alluvial Rivers, L. Beazley, 236
Effect of Distortion of a Stiff-Jointed Frame on its Plastic Collapse Load, J. W. H. King and D. E. Jenkins, 20 ; M. R. Horne, 87
Engineers and Physicists, K. L. Stretch, 368
Equation of Food and Fuel, Hugh Nicol, 510
Foxcote Reservoir, Binnie, Deacon and Gourley, 695
French Locomotive Experiences, J. T. Van Riemsdijk, 368 ; S. T. Clayton, 402 ; Edward H. Livesay, 474 ; W. D. Spencer, 474 ; James Stokes, 582
Gear Standards, H. H. Broughton, 652 ; Thos. H. O'Beirne, 652 ; A. M. Gunner, 694 ; G. Weston, 734
Heat Transfer to a Fluid Flowing in a Tube within a Radiating Enclosure, C. D. Weir, 780
How to Avoid Building New Roads, D. L. Reeves, 694 ; G. Lyon, 810
James Nasmyth 1808-1890, J. F. W. Bryon, 236
Kariba Dam, 196
Loading in Bracket Bolting, J. E. Keown, 86
London's Water Supply, W. Whalley, 196 ; Robert Aickman, 268
Never be Short of Labour, W. F. Wright, 550 ; E. G. Semler, 619 ; L. Gilling Smith, 653 ; J. F. Perrin, 695 ; E. G. Semler, 781
Oil Test Laboratory, P. W. Harrison, 122
Old Students of University College London, Ifor Evans, 402
One-Tooth Pinions, F. E. Lindsay, 368 ; W. A. Tuplin, 438
Our Roads Are Perilous, K. J. Wilkinson, 438 ; W. A. Tuplin, 510
Rebuilt Chapelon "Pacifics", Edward H. Livesey, 734
Resonance Stress Testing, R. P. N. Jones, 402 ; Bernard Bramall, 582
Road Research, S. Grieveson, 236
Steel Works Locomotives, L. Irvine-Brown, 268
Theory of Hydrodynamic Lubrication in Parallel Sliding, H. Blok, 304 ; W. Lewicki, 336
Volta River Project, C. L. Wiggins, 402
Welding at Calder Hall, P. D. Tatton-Brown, 924
Whymper and the Mont Cenis Tunnel, T. L. Watkins, 86

Level Control, Automatic Stock, on Blast Furnaces, I. Kjellman and K. Gronblad, 800
Crossing Eliminated, Dangerous S. African, 673
Indicator, Nucleonic, Baldwin Instrument Co., Ltd., 630
of the Vaal Hartz Weir to be Raised, 673
Lifeboat, Glass-Reinforced Plastic, Woodnutt and Co., Ltd., 376
Life-saving from Submarines and Deep Diving, 702
Lift Planning Rule, Marryat and Scott, Ltd., (142)
Lifting Appliances and Cranes, (Patents, 319, 423, 869)
and Scarifying Equipment, Track, 487
and Tipping Goods Wagon, Two-Way, Siegener Eisenbedarf A.G. (S.E.A.G.), 30
Light, Calibration of Secondary Standards, 909
Lighthouses, Eddystone, 1881, 925
Lighting, Electric, 1881, 886
Fluorescent, General Electric Co., Ltd., 25
and Safety, Street, W. Robinson, 759
Stage, at the Dusseldorf Opera House, 864
Lightweight Breathing Apparatus, Normalair Ltd., (422)
Electric Passenger Train, 280
High-Altitude Research Missile, 753
Rolling Stock in the United States, High-Speed, (Leading Article, 218)
Trains for Mersey Lines, (318)
Limit Switch, Snap-Action, Sharp Control Gear, Ltd., 133
Limited Extent, Surveying Instruments for Methods and Surveys of, P. Kissam, (Review, 336)
Line for Automotive Wheel Production, Automatic Transfer Feed Press, Clearing Machine Corporation, 282
Doubling and Improvements on the Natal Main, 134
German Tanker, 209
Improvements, Metropolitan, (60)
Modified Diesel Railcar for a Branch, (350)
Liner "Camito", Twin-Screw, Alexander Stephen and Sons, Ltd., 860
"Carinthia", Cunard, John Brown and Co. (Clydebank), Ltd., 199
Linered Press Cylinder, Stainless, English Steel Corporation, Ltd., 278
Lines, Lightweight Trains for Mersey, (318)
in Sweden, High-Voltage Transmission, 209
Transmission, Aluminium for, Aluminium Union Ltd., (678)
Liquefied Petroleum Gas in Bulk for Industries in South Africa, 748
Liquid Metals, A.C. and D.C. Conduction Pumps for, L. R. Blake, 541, 572

LITERATURE

Books Received, 21, 53, 87, 123, 159, 197, 237, 269, 305, 336, 369, 403, 475, 511, 550, 583, 653, 695, 735, 781, 811, 849, 887

BOOKS OF REFERENCE

Directory of Railway Officials and Year Book, 1956-57, 849
Jane's All The World's Aircraft, 1956-57, 887
Fighting Ships, 1956-57, 848
Manual of Screw Thread Tools, Firth Brown Tools Ltd., (858)
Reinforced Concrete Association, List of Members, 667
Ship and Boat Builder, Annual Review, 1956, 849
Sutcliffe's Manual of Belt Conveying, 887
Textile Machinery Index, 667

REVIEWS

A.B.A.C.S. Nomograms, A. Giet, 653
Aberrations of Thin Lenses, H. H. Emsley, 735
Aeronautical History in Pictures, 781
Aircraft Engines of the World, P. H. Wilkinson, 268
Gas Turbines, C. W. Smith, 53
Gyroscopic Flight Instruments, 619
Applications Scientifiques de la Notion de la Regularite, Les, P. Vernotte, 21
Atomic Structure and the Strength of Metals, N. F. Mott, 811
Automatic Digital Calculators, A. D. Booth and K. H. V. Booth, 305
Basic Mathematics for Science and Engineering, P. G. Andres, H. J. Miser and H. Reingold, 122
Bibliography of the Art of Turning and Lathe and Machine Tool History, S. G. Abell, J. Leggat and W. G. Ogden, 769
Bridging the Years, C. M. Norrie, 811
British Civil Engineering Contracting Industry : Illustrated History, 21
Railways in Action, O. S. Nock, 848
Calder Hall, Kenneth Jay, 583
Cavitation in Hydrodynamics, 582
Clock and Watch Escapements, W. J. Gazeley, 368
Chromium-Nickel Austenitic Steels, F. H. Keating, 21
Computers : Their Operation and Applications, E. C. Berkeley and L. Wainwright, 695
Control of Quality in the Production of Wrought Non-Ferrous Metals and Alloys, 53
Creep and Fracture of Metals at High Temperatures, 237
Design and Construction of Engineering Foundations, F. D. C. Henry, 269
of Piping Systems, 237
Development of Power of Cables, P. V. Hunter, and J. T. Hazell, 236
Die Bestimmung der Frontgeschwindigkeit in einem einachsig inhomogenen Korper aus seismischen Reflexionsmessungen, M. Weber, 159
Diecasting Process, The, H. K. Barton, 197
Diesel and High Compression Gas Engines, Edgar J. Kates, 53
Differential Equations, S. V. Fagg, 237
DIN Bezugsquellen fur Normgerechte Erzeugnisse, W. Porstmann, 123
Disposal of Sewage, The, T. H. P. Veal, 87
of Sewage and Other Water-borne Wastes, Karl Imhoff, W. J. Muller and D. K. B. Thistlethwayte, 735
Drainage and Use of Methane from Coalfields, 269
Dynamique Generale des Vibrations, Y. Rocard, 269
Economic Consequences of Automation, Paul Einzig, 510
Effective Supervision, Milon Brown, 438
Electrical Principles, H. Cotton, 810
Electricity, Magnetism and Atomic Physics, Vol. 1 ; Electricity and Magnetism, J. H. Fewkes and J. Yarwood, 781
Electronic Computers, T. E. Ivall, 924
Electrostatic Precipitation in Theory and Practice, An Introduction, H. E. Rose and A. J. Wood, 550
Elements of Mechanics and Mechanisms, F. J. Camm, 887
Engineering Drawing and Geometry, R. P. Hoelscher and C. H. Springer, 197
Fluid Mechanics, Charles Jaeger, 439
Inspection, Measurement and Testing, H. C. Town, 511
Science and Calculations, W. E. Fisher, 887
Erection of Construction Steelwork, Thomas Barron, 811
Etude Experimentale de la Convection Forcee de la Chaleur a partir de Cylindres a Surface Rugueuse, E. A. Brun, G. Brunello and M. Vernotte, 159
Examples in Mechanical Vibrations, J. Hannah and R. C. Stephens, 123
Explosion Danger of Bituminous Coal Dusts, W. Morsbach, 21
Festiniog Railway, Vol. I, 1800-1889, James I. C. Boyd, 511
Flow-Measurement by the Differential-Pressure Method, 53
Foundations : Design and Practice, Elwyn E. Seelye, 619
Frequency Response, R. Oldenburger, 52
Geoelektrische Bestimmung von Schichtgrenzen eines tertiaren Plateaus mit Quartarbedeckung, M. Weber, 305
Handbook on Belt Conveyor Design, 269
of Fastening and Jointing Metal Parts, V. H. Laughner and A. D. Hargan, 53
of Hardwoods, 21
Heat Engines, A. C. Walshaw, 21
History and Development of Motor Cycles, C. F. Caunter, 474
Induction Heating Practice, D. Warburton-Brown, 887
Introduction to Plasticity, Aris Phillips, 20
Jig and Fixture Design, P. S. Houghton, 583
Manganese Steel, 53
Materials Handbook, George S. Brady, 21
Mechanical Engineering Practice, C. F. Shoop and G. L. Tuve, 53
Vibrations, J. P. Den Hartog, 781
Metal Transfer between Palladium and Silver Contacts at Low Inductances, J. Riddlestone, 121
Metallurgy of the Rarer Metals, No. 5 Molybdenum, L. Northcott, 695
Micro-Indentation Hardness Testing, B. W. Mott, 20
Modern Workshop Technology : Part I, Materials and Processes, H. Wright Baker, 87
Nouvelle Conception de la Resistance des Materiaux, A. Couard, 122
Performance Criteria of Gas-Turbine Combustion Chambers, D. B. Spalding, 550
Practical Solution of Torsional Vibration Problems : Vol. I : Frequence Calculations, W. Ker Wilson, 52
Principles of Turbo-Machinery, D. G. Shepherd, 159
Progress in Semi-Conductors, A. F. Gibson, R. E. Burgess and P. Aigrain, 695
Rectangular-Polar Conversion Tables, E. H. Neville, 21
Report on the Multiple-Purpose Plan for Permanently Controlling the Yellow River, Teng Tse-Hui, 87
Review of High-Temperature Technology, I. E. Campbell, 403
Robert Hooke, Margaret 'Espinasse, 849
Route Surveys and Construction, H. Rubey, 336
"Schiffstechnik", Forschungshefte fur Schiffbau und Schiffsmachinenbau, 123
Science and Practice of Welding, A. C. Davis, 305
Selected Combustion Problems, 11 : Transport Phenomena ; Ignition ; Altitude Behaviour and Scaling of Aero Engines, 583
Selection and Training of Foremen in Europe, Sven Grabe and Paul Silberer, 924
Solution of Problems in Aerodynamics, S. A. Urry, 369
of Problems in Telecommunications, C. S. Henson, 369
Stromungsvorgange in kunstlich belufteten Raumen, W. Linke, 159
Structures, An Introduction to the Theory of, W. Merchant and A. Bolton, 369
Surveying for Civil Engineers, P. Kissam, 336
Instruments and Methods for Surveys of Limited Extent, P. Kissam, 336
Symposium on Powder Metallurgy, 1954, 653
Technical Explosion Investigations of Industrial Dusts, E. Wehner, 159
Television Engineering, S. W. Amos and D. C. Birkinshaw, 619
Theory of Machines, T. Bevan, 550
and Practice of Lubrication for Engineers, D. D. Fuller, 403
of Prestressed Concrete Design ; Statically Determinate Structures, Henry J. Cowan, 475
Total Heat/Entropy Chart for Steam, Wright-Baker, 123
Wave Diagrams for Nonsteady Flow in Ducts, George Rudinger, 20
Wet Processes for Combating Fire-Damp and Coal Dust Explosions, H. Schultze-Rhonhof, 159
Wing Sections, The Design of, T. Nonweiler, 550
Zur Interpretation von Seismischen Refraktionsmessungen, M. Weber, 123

Livadia, Yacht, 1880, 850
Lloyd's Shipbuilding Returns, 219, 571 ; Statistical Tables, 835 ; Wreck Returns, (178), (530), (792)
Load, Effect of Distortion of a Stiff-Jointed Frame on its Plastic Collapse, J. W. H. King and D. E. Jenkins, (Letter, 20); M. R. Horne, (Letter, 87)
Losses in Alternating Current, Stray, (Report, 252)
Measuring System, Electrical, for Kingsbury Thrust Bearings, Baldwin-Lima-Hamilton Corporation, 715
Loader, Coal Cutter, Hartley Bank Colliery, 823
Hydraulic, E. Boydell and Co., Ltd., 737
for Injection Moulding Machines, Hopper, Fawcett Finney Ltd., (669)
Lorry, Hydrauliska Industri Aktiebolaget, 633
Overshot, David Brown Industries Ltd., 737
Loading, Abnormal, Analysis of Right Bridge Decks Subjected to, (Report, 746)
in Bracket Bolting, J. E. Keown, (Letter, 86)
Shovel, Hydraulic, F. E. Weatherill, Ltd., 737
Loan of Plutonium-Beryllium Neutron Sources to Educational Institutions, 715
Local External Pressure, Strength of a Tube Under, G. R. Higginson, 428
Lockheed Transmission Hand Brake, Automotive Products Co., Ltd., 470

LOCOMOTIVES

Diesel and Electric Locomotive Building in Lancashire, English Electric Co., Ltd., 413
Electric Locomotives for Eire, Sulzer Brothers (London) Ltd., 485
Engine Manufacture at a British Locomotive Works, North British Locomotive Co., Ltd., 411
Locomotives in Mines, (Report, 388)
Traction, 63
Express Passenger Locomotive, (Engraving, 654)
Passenger Engine, 1879, 777
Further French Locomotive Experiences, E. H. Livesay, 188, 221, 256, 292, 324, 366, 400 ; J. T. Van Riemsdijk, (Letter, 368) ; S. T. Clayton, (Letter, 402); Edward H. Livesay, (Letter, 474) ; W. D. Spencer, Letter, 474) ; James Stokes, (Letter, 582)
Goods Engine, Eight-Wheeled, 119
Individual Axle Drive for Electric Locomotives, Siemens-Schuckertwerke A.G., 900
Lightweight Electric Passenger Train, 280
Trains for Mersey Lines, (318)
Locomotive Engine, 270
Frame Slotting Machine, 22
Superheater, (Leading Article, 796)
Notable Locomotives of 1906, E. C. Poultney, 731, 767
Rebuilt Chapelon "Pacifics", Edward H. Livesey, (Letter, 734)
Standard Class "52 Locomotives with British-Caprotti Valve Gear, 708
Steel Works Locomotives, L. Irvine-Brown, (Letter, 268)
West German Locomotives, 65

Log Mill, Portable, Stenners of Tiverton Ltd., 824
London Airport Accident, 607
Airport, Sir John D'Albiac, 643
Fires in, 355
Old Students of University College, Ifor Evans, (Letter, 402)
Omnibus Centenary, (Leading Article, 109)
Omnibuses, 100 Years Ago, 462
Yorkshire Motorway, Modified Line, (745)
London's Water Supply, W. Whalley, (Letter, 196) ; Robert Aickman, (Letter, 268)
Long Distance Radio, German, Fifty Years, 712
Range Radar Installation at New York Airport, General Electric Co., 420
Welded Rails, Development Policy in, 134
Loose-Boundary Hydraulics, Research, Hydraulics Research Station, 666
Lord Mayor's Show, Aluminium in Pageantry, 683
Lordships Discuss Education, Their, (Leading Article, 758)
Lorries, "Claymore Underfloor-engined, Albion Motors Ltd., 430
Lorry Loader, Hydrauliska Industri Aktiebolaget, 633
"Swiftsure" 6-Ton Platform, Transport Equipment (Thornycroft) Ltd., 430
Twin-steer Six-wheeled, Atkinson Vehicles Ltd., 430
Losses in Alternating Current, Stray Load, (Report, 252)
Loudspeaker Driving Unit, Flameproof, General Electric Co., Ltd., 165
Louvres for Fish Collection, System of, 103
Low Energy Electrons, Scattering of, 563
Inductances, Metal Transfer between Palladium and Silver Contacts at, J. Riddlestone, (Review, 121)

Power Marine Diesel Engines, Petters Ltd., 515
Temperature Corrosion, British Petroleum Co., Ltd., 483
Temperature Corrosion Control, British Petroleum Co., Ltd., (588)
Temperatures, Storage of Free Radicals, 828
Lubricating Oil Installation for Austria, Shell Austria A.G., 346
Lubrication Boundary, United Lubricants, Ltd., 239
for Engineers, Theory and Practice of, D. D. Fuller, (Review, 403)
Machine Tool, Wakefield-Dick Industrial Oils Ltd., (818)
in Parallel Sliding, Theory of Hydrodynamic, H. Blok, (Letter, 304); W. Lewicki, (Letter, 336)
sous Pression Rapidement Variable, Etude de la, (Report, 413)
Lunen, Aluminium Road Bridge, 711
Lung and Heart Machine, Artificial, New Electronic Products Ltd., 744

M

MacAdam, 1756-1836, Bicentenary of John Loudon, 395
Machine Tool Exhibition, International, 7, 43
Tool Trades Association, Sir Alfred Herbert Travelling Scholarship, 535

MACHINE TOOLS AND MACHINE SHOP EQUIPMENT

Automatic Press, Gaston E. Marbaix, Ltd., 45
Band Resaw with Hydraulically-Operated Feed, Stenners of Tiverton Ltd., 591
Bandsawing Machine, Startrite Engineering Co., Ltd., 708
Bibliography of the Art of Turning and Lathe and Machine Tool History, S. G. Abell, J. Leggat and W. G. Ogden, (Review, 269)
Boring, Facing and Milling Machine, Horizontal, Woodhouse and Mitchell, Ltd., 48
Machine, Horizontal Toolroom, H. W. Kearns and Co., Ltd., 7
Machine, Jig, Stedall Machine Tool Co., Ltd., 46
Machine, Vertical Fine, Dowding and Doll, Ltd., 44
and Turning Mill, Vertical, Selson Machine Tool Co., Ltd., 10
Chuck for Screwed Shank Tools, B.S.A. Tools Ltd., 709
Drilling Machine, Radial, James Archdale and Co., Ltd., 47
European Machine Tool Committee, 899
Forging Machine Feeding Device, Eumuco (England), Ltd., (106)
Forming Machine, Cold Strip, Heenan and Foude, Ltd., 48
Gauge and Tool Exhibition, (172)
Gear Hobbing Machine, High Precision, W. E. Sykes Ltd., (566)
Gear Hobbing and Shaving Machine, Automatic Cycle, David Brown Machine Tool Division, 926
Grinding Machine, Automatic Internal, Stuart Davis, Ltd., 10
Carbide Tool, Stedall Machine Tool Co., Ltd., 46
Circular Form Tool, A. A. Jones and Shipman Ltd., 861
Cylindrical, Myford Engineering Co., Ltd., 708
Face, Buck and Hickman, Ltd., 8
Four-Head Continuous, Lumsden Machine Co., Ltd., 46
Hydraulic Surface, Gaston E. Marbaix, Ltd., 45
Precision Internal, Reilly Engineering Ltd., 519
Shaft, Gear Grinding Co., Ltd., 44
Spur Gear, Stuart Davis, Ltd., 10
Spur Tooth Gear, Gear Grinding Co., Ltd., 44
Wet Belt, Taylor Tools and Supplies Ltd., (638)
Worm and Thread, Stedall Machine Tool Co., Ltd., 46
Hobbing Machine, Automatic Spline, Elgar Machine Tool Co., Ltd., 47
Honing Machine, Gaston E. Marbaix, Ltd., 45
Hydraulic Power Pack, Keelavite Rotary Pumps and Motors, Ltd., 50
Indexing Machine, Basic Automatic, Bristol Repetition Ltd., 450
International Machine Tool Exhibition, 7, 43
Jig and Fixture Design, P. S. Houghton, (Review, 583)
Lathe, Contouring, Gaston E. Marbaix, Ltd., 45
Copy-Spinning and Flow-Forming, Elgar Machine Tool Co., Ltd., 47
Copying, Dowding and Doll, Ltd., 44
Duplex Wheel, 337
Heavy-Duty, 22in. Swing, Denham's Engineering Co., Ltd., 50
High-Speed Production, Crowthorne Engineering Co., Ltd., 48
Multi-Spindle Automatic, 207
Profile Facing, Charles Churchill and Co., Ltd., 43
Roughing Roll, Heavy-Duty, Maschinenfabrik Herkules, 30
Vertical Spindle Chucking, Charles Churchill and Co., Ltd., 43
Ward-Leonard Control of Veneer Peeling, Tyne Timber and Veneers, Ltd., 96
Machine Clamp, Headland Engineering Developments Ltd., (830)
Tool Demonstration at Manchester, Alfred Herbert Ltd., (458)
Tool Lubrication, Wakefield-Dick Industrial Oils Ltd., (818)
Tool Manufacturers' Exhibition, Kerry's (Great Britain) Ltd., (830)
Measuring Machine, Involute, Gear Grinding Co., Ltd., 44
Milling Machine, Automatic Hydraulic Copying, Dowding and Doll, Ltd., 44
Machine, Automatic Production, Elgar Machine Tool Co., Ltd., 47
Machine, Horizontal, George Cohen, Sons and Co., Ltd., 10
Machine, Turret, Woodhouse and Mitchell, Ltd., 48
Machine, "Valvetrace", Buck and Hickman, Ltd., 8
Machine, Vertical, James Archdale and Co., Ltd., 47
Oil Mist Precipitator for Machine Shops, W. C. Holmes and Co., Ltd., (704)
Patents, 72, 179, 215, 495, 793, 831, 869
Planing Machine, Hydraulic Open-Side, Butler Machine Tool Co., Ltd., 11
Plano-Milling Machine, Elgar Machine Tool Co., Ltd., 47
Press Brake, Motor-Driven Swing-Beam, F. J. Edwards, Ltd., 8
Press, Geared, 100-Ton Open Front, Hordern, Mason and Edwards Ltd., 49
Universal Automatic, Stuart Davis, Ltd., 10
Profiling Machine, Heavy-Duty, Selson Machine Tool Co., Ltd., 9
Reference Manual of German Machine Tools, (Report, 252)
Roller Straightening Machine, Bronx Engineering Co., Ltd., 708
Rolling Machine, Spline, Dowding and Doll, Ltd., 44
Sawing Machine, Heavy-Duty, High-Speed Cold, Clifton and Baird, Ltd., 47
Screw Machine, Automatic, Selson Machine Tool Co., Ltd., 9
Shaper, Double-Spindle Automatic, Thomas White and Sons, Ltd., 11
Sharpening Machine, Tungsten Carbide Tipped Tool, George Cohen, Sons and Co., Ltd., 10
Shaving Press, Oscillating, Gaston E. Marbaix, Ltd., 45
Shearing Machine, Heavy-Duty Plate, Bronx Engineering Co., Ltd., 27
Slotting Machine, W. Collier and Co., 551
Machine, Locomotive Frame, 22
Machine, Precision Tool-Room, Butler Machine Tool Co., Ltd., 11
Special Purpose Machine, Pollard and Co., Ltd., 48
Straightening Press, Pitzmann and Pfeiffer K.G., 674
Tailstock and Wheel Truing Equipment for Cylindrical Grinder, Combined Hydraulic, John Lund, Ltd., 9
Transfer Machine, James Archdale and Co., Ltd., 47
Unit Head for use on Transfer and Special Purpose Machines, Brooke Tool Manufacturing Co., Ltd., 7
Vice, Air-Operated, Hardon Precision Engineering Co., Ltd., (630)
Workshop Tools and Appliances, (Patents, 387, 423)

Machinery Competition, Ditch Cleaning, (784)
Exports, Agricultural, 414
Hydraulic, (Patent, 831)
Index, Textile, (Review, 667)
at the Smithfield Show, 782, 815
Machines, Theory of, T. Bevan, (Review, 550)
Machining of Turbine Castings, 208
Magazine, Quarterly, on Flexible Tubes and Hoses, Compoflex Co., Ltd., (699)
Magnesium Alloys, Experimental, 621
Development in America, 676
Magnetic Ferrite, Plessey Co., Ltd., (566)
Magnetism, Electricity and Atomic Physics, J. H. Fewkes and J. Yarwood, (Review, 781)
Magneto Testing, Flywheel, Crypton Equipment Ltd., (458)
Magnets, Effect of Low Temperature on the Stability of Permanent, (Report, 216)
Mail Steamer, Stern-wheel, 1880, 809
Main Drainage, Portsmouth, (932)
Line, Doubling and Improvements on the Natal, 134
Maintaining Full Employment, 135
Maintenance Depot at Stratford, Diesel, (318)
Staff, Railway, Mobile School for, (458)
Malaya, Irrigation Scheme in, R. L. Akers and A. I. G. Robertson, 58
Malting Plant in Nairobi, Electrical Equipment for, East African Breweries, Ltd., 204
Man Against Antarctica, Twentieth-Century, Sir Raymond Priestley, 296
Must Measure, (Leading Article, 834)
Manadon, Royal Naval Engineering College at, 75
Management Education, 710
Conference, National, 451
Men and Metal, 597
Managers in Industry, Importance of Good, (Leading Article, 74)
Manganese Steel, (Review, 53)
Manchester Association of Engineers, Centenary, 509; Development of the "Deltic" Engine, C. D. Carmichael, 700
Machine Tool Demonstration, Alfred Herbert Ltd., (458)
Outer Ring Road, Motorway Scheme for Stretford-Worsley Section
Ship Canal Tug "Sabre", P. K. Harris (Shipbuilders), Ltd., 342
Manipulator, Heavy Welding, Metropolitan-Vickers Electrical Co., Ltd., 897
Mannheim-Ludwigshafen, Rhine Bridge, Demag A.G., 174
Manpower in Industry, 170
Scientific and Engineering, 607
Manual of Belt Conveying, Sutcliffe's, 887
of German Machine Tools, Reference, (Report, 252)
of Screw Thread Tools, Firth Brown Tools Ltd., (858)
Manufacture at a British Locomotive Works, Diesel Engine, North British Locomotive Co., Ltd., 411
of a Whales Head, David Budworth Ltd., 896
Manufacturer's Laboratories, Crane, Steele's Engineering Products, Ltd., (164)
Manufactures, Petroleum Equipment, (214)
Manufacturing Industry, Investment, 597
Plant at Ardeer, Explosives, Imperial Chemical Industries, Ltd., 91
Margam, Tonnage Oxygen Plant Opened at, British Oxygen Co., Ltd., 183
Marine Diesel Engines, Low-Power, Petters Ltd., 515
Diesel Engine, Trials of Turbo-Charged Two-Stroke, Gebr. Sulzer A.G., 245
Engineering, (Patents, 107, 179, 351, 387)
Propellers, Controllable-Pitch, Escher Wyss A.G., 513
Radar Equipment, Kelvin Hughes (Marine), Ltd., 239
Maritzburg's New Sewage Disposal Works, 673
Market, A Common European, (Leading Article, 497)
Marking Warning Tape, Protective, Smith and Nephew, Ltd., (350)
Marnham Power Station, High, Central Electricity Authority, 240
Marshalling, Railway, Radio-Telephony in, 634
Massachusetts Institute of Technology, Construction of Research Reactor at M.I.T., 31; 6000 MeV Synchrotron Particle Accelerator at Cambridge, 32; Medical Irradiation Facilities, 600
Mast, Radio and Television, at Steinkimmen, 489
Mastic Asphalt, (530)
Materials, Aircraft, A. J. Murphy, 885
Classification of Insulating, (B.S.I., 320)
Data Sheets, (859)
Granular or Powdered, Rotary Cooler for, Dunford and Elliott Process Engineering Ltd., 897
Handbook, George S. Brady, (Review, 21)
Handling in Industry, 721
Prices, Basic, 747
and Processes, Modern Workshop Technology: Part I, H. Wright Baker, (Review, 87)
Materiaux, Nouvelle Conception de la Resistance des, A. Couard, (Review, 122)
Mathematics, Aircraft Design, Bristol Aircraft, Ltd., 39
for Science and Engineering, Basic, P. G. Andres, H. J. Miser and H. Reingold, (Review, 122)
Mauna Loa Observatory in Hawaii, Dedication, 601
Measure, Man Must, (Leading Article, 834)
Measurement of Cutting Tool Performance with Radioactive Isotopes, Alexander Duckham and Co., Ltd., 127
of Gas Transit Times in a Blast Furnace, T. W. Johnson, 800
Ships' Speed, D. A. Senior, 80
of Small Holes, (Report, 288)
and Testing, Engineering Inspection, H. C. Town, (Review, 511)
of Turbine Shaft Displacement, Pneumatic, C. A. Scoles, 763
Measurements in Concrete Structures, V.D.I., 381
in Drill Holes, Study of Underground Water Movements by, Gordon Newstead and J. C. Jaeger, 76
in Germany, Radioactivity, 787
Stable Synchronous Detector for Audio-Frequency, (Report, 19)
Measuring Appliances, (Patent, 251)
Camber on Large Rolls, Optical Instrument for, P. W. Harrison, 327
Instruments, (Patents, 180, 495)
Machine, Involute, Gear Grinding Co., Ltd., 44
System, Electrical Load, for Kingsbury Thrust Bearings, Baldwin-Lima-Hamilton Corporation, 715
Mechanical Breathing Machines, G. T. Smith-Clarke, 876, 911
Engineering Industry, Swiss, 101
Engineering Practice, C. H. Shoop and G. L. Tuve, (Review, 53)
Engineering Research Laboratory, 447
Harvesting of Sugar Beet, British Sugar Corporation, 596
Vibrations, J. P. Den Hartog, (Review, 781)
Vibrations, Examples in, J. Hannah and R. C. Stephens, (Review, 123)
Workshops, Koedoespoort, 134
"Mechanicals" at Edinburgh, The, (Leading Article, 37)
Mechanics, Engineering Fluid, Charles Jaeger, (Review, 439)
Laboratory, Railway Soil, (157)
and Mechanisms, Elements of, F. J. Camm, (Review, 887)
Mechanisation Exhibition, Postal, 451
Mechanised Motor Body Building, Briggs Motor Bodies Ltd., 817
Medal Award, Acheson, R. M. Burns, (743)
to Dr. E. H. Land, Award of Howard N. Potts, 637
Medical Irradiation Facilities at Massachusetts Institute of Technology, 600
Medium Horsepower Diesel Engine, 208
Range Airliner, (350)
Voltage Withdrawable Switchgear, George Ellison Ltd., 486
Medway Towns By-Pass, (422)
Merchant Vessel, Nuclear Propulsion Plant, Babcock and Wilcox Co., 791
Mersey Docks, Pumping Plant for the Wallasey Impounding Station at, 129
Lines, Lightweight Trains for, (318)
Mess, Middle Eastern (Leading Article, 682)
Metal Cleaning and Electro-Plating Factory, Electro-Chemical Engineering Co., Ltd., 97
Congress and Exposition, National, 865, 901, 929
Finishing Processes, Roto-Finish Ltd., 486
Goods Industries, Equipment of German, 314
Management and Men, 597
Parts, Handbook of Fastening and Jointing, V. H. Laughner and A. D. Hargan, (Review, 53)
Protection, Corrosion Ltd., (932)
Rectifier Welding Set, Quasi-Arc, Ltd., 238
Transfer between Palladium and Silver Contacts at Low Inductances, J. Riddlestone, (Review, 121)
Metallic Articles, Plastic Coating, F. W. Berk and Co., Ltd., 823

METALLURGICAL TOPICS

A.C. and D.C. Conduction Pumps for Liquid Metals, L. R. Blake, 572
Alloy Steels, 302
Arc-Cast Molybdenum, 621
Atomic Structure and the Strength of Metals, N. F. Mott, (Review, 811)
Beryllium Copper, 923
Bessemer Centenary, 120
Brittle Fracture of Steel Forgings, 778
Changing Nature of the Fatigue Problem, H. J. Gough, 359
Combined Stress Creep Fracture of a Commercial Copper at 250 Deg. Cent., A. E. Johnson, J. Henderson and V. D. Mathur, 261, 299
Conference on Fatigue of Metals, 355, 359
Control of Quality in the Production of Wrought-Non-Ferrous Metals and Alloys, (Review, 53)
Corrosion of Steel, 303
Creep and Fracture of Metals at High Temperatures, (Review, 237)
Electrolytic Titanium, 779
Experimental Magnesium Alloys, 621
Ferrites, Convention, 607
Handbook of Fastening and Jointing Metal Parts, V. H. Laughner and A. D. Hargan, (Review, 53)
Hardening of Austenitic Stainless Steel, 437
High-Purity Chromium, 303
High-Temperature Alloy, (286)
Hydrogen in Steel, 120, 779
Impregnation in Modern Powder Metallurgy, 436
Internal Pressure Tests on Steel Cylinders, 620
Low-Temperature Corrosion, British Petroleum Co., Ltd., 483
Manganese Steel, (Review, 53)
Metal Finishing Processes, Roto-Finish Ltd., 486
Metallurgical Reviews, 437
Uses of Sodium, 923
Metallurgy of the Rarer Metals, No. 5 Molybdenum, L. Northcott, (Review, 695)
Micro-Indentation Hardness Testing, B. W. Mott, (Review, 20)
National Metal Congress and Exposition, 865, 901, 929
Non-Ferrous Conduit and Conduit Fittings, (B.S.I., 72)
Notes on the Brittle Fracture of Steels, Sulzer Brothers, 443
Oxidation Resistant Silicon Aluminium Steels, (Report, 559)
Patents, 72, 179, 251, 287, 387, 424, 495, 603, 831, 869
Plastic Steel Jointing and Repairing Compound, (303)
Scaling of Cobalt-Chromium Alloys, 436
Scoring and Surface Damage, 922
Silicon and Aluminium in Hot-Rolled Steel, 778
Carbide, 779
Sulphur Embrittlement of Cobalt, 120
Surface Blisters on Steel, 121
Effects in Fatigue, 121
Symposium on Powder Metallurgy, 1954, (Review, 653)
Wrought Titanium, 621
Zinc-Aluminium-Copper Bearing Alloy, 561

Metals and Alloys, Control of Quality in the Production of Wrought Non-Ferrous, (Review, 53)
Conference on Fatigue, 355, 359
at High Temperatures, Creep and Fracture of, (Review, 237)
Liquid, A.C. and D.C. Conduction Pumps for, L. R. Blake, 541
Metallurgy of the Rarer, No. 5 Molybdenum, L. Northcott, (Review, 695)
Roll Compacting of Powdered, 104
Meter, Moisture Content, Paneletrik OHG, 634
Smoke Density, Bailey Meters and Controls, Ltd., (318)
Methane from Coalfields, Drainage and Use of, (Review, 269)
Method, Flow-Measurement by the Differential-Pressure, (Review, 53)
Methods in Irrigation Problems, Modern Dewatering, S. Leliavsky, 114, 148
of Sampling Water Used in Industry, (B.S.I., 776)
for Surveys of Limited Extent, Surveying Instruments and, P. Kissam, (Review, 336)
of Testing Vulcanised Rubber, (B.S.I., 36, 108, 921)
of Testing Water Used in Industry, (B.S.I., 144)
Metropolitan Line Improvements, (60)
Sewage, 498
Micro-Indentation Hardness Testing, B. W. Mott, (Review, 20)
Mid-Mounted Industrial Mower, Massey-Harris-Ferguson, Ltd., 23
Middle-Eastern Mess, (Leading Article, 682)
Mild Steel, Arc-Welded Machinery Construction in, (Report, 288)
Military Vehicles, Demonstration, 518
Milk, Pipeline for, 138
Mill Drive, Abbey Works Slabbing, Steel Company of Wales, 98
Electrical Drive for a Flour, Cranfield Brothers, Ltd., 167
Engine, Reversing Rolling, 512
Engine, Rolling, 306
Erection of Broad-Strip Rolling, Hahnsche Werke, A.G., 102
Multi-Roll Cold Rolling, Schloemann Aktiengesellschaft
Newsprint, at Kemsley, Bowater Paper Corporation, Ltd., 851, 888
Portable Log, Stenners of Tiverton Ltd., 824
Rolling, Back-up-Driven Four-High, Cold Strip, Stanat Manufacturing Co., Inc., 601
Slabbing, Design of Ingots for High Output, H. G. Jones, P. D. Dickerson and D. T. Steer, 765
Slabbing, begins Operation, Dortmund-Horder Hutten-Union, 454
Time Characteristics of the Slabbing, H. G. Jones, D. T. Steer and P. D. Dickerson, 765
Vertical Boring and Turning, Selson Machine Tool Co., Ltd., 10
Milling Machine, Automatic Hydraulic Copying, Dowding and Doll, Ltd., 44
Machine, Automatic Production, Elgar Machine Tool Co., Ltd., 47

Machine, Horizontal, George Cohen, Sons and Co., Ltd., 10
Machine, Horizontal Boring, Facing and, Woodhouse and Mitchell, Ltd., 48
Machine, Turret, Woodhouse and Mitchell, Ltd., 48
Machine, "Valvetrace", Buck and Hickman, Ltd., 8
Machine, Vertical, James Archdale and Co., Ltd., 47
Millwall, Slipway for Repair of Small Craft, 683
Milton Derailment, and A.T.C., (Leading Article, 354)
Mineral Resources, W. K. Jones, 499
Mineralol-und Brennstoffinormen, (Report, 352)

MINES AND MINING

Coal Cutter Loader, Hartley Bank Colliery, 823
Coal Mines, Reports on, 570
Coal Mining Disputes and Absenteeism, 488
Diesel Locomotives in Mines, (Report, 388)
Mining Industry's Summer School, 378
Mining for Nickel, Mond Nickel Co., Ltd., (265)
Oiler for Mine Gauge Guide Ropes, (868)
Patents, 215, 251, 287, 388, 423, 459, 755, 933
Portable Mine Winding Engine, 119
Post-War Development in the Coal-Mining Industry, A. Young, H. A. Longden and B. L. Metcalf, 918
Underground Gasification of Coal, 873
Warora Colliery, Central India, 584
Wire-Armoured Paper-Insulated Cables for Use in Mines, (B.S.I., 544)

Miniature Circuit Breaker, British Central Electrical Co., Ltd., (458)
Missile Experiment, Royal Aircraft Establishment, Aberporth, 629
Lightweight High-Altitude Research, 753
Missiles, Guided, Fairey Aviation Co., Ltd., 333
Guided, and Rockets, International Congress, 899
International Congress on Guided, 314
Mixer, Twin-Shaft Paddle, Road Note No. 21 : Tests on the Efficiency of, (Report, 660)
Mobile Crane Developments, Steeles Engineering Products Ltd., 814
School for Railway Maintenance Staff, (458)
Studio, B.B.C. New, (34)
Training Equipments, Diesel Engine, F. Perkins Ltd., (808)
"Model Engineer" Exhibition, 255
Modern Dewatering Methods in Irrigation Problems, S. Leliavsky, 114, 148
Hydraulic Diversion Works on Alluvial Rivers, Cut-offs in, S. Leliavsky, 184, 228
Powder Metallurgy, Impregnation, 436
Pyrite Plant Opened in South Australia, 205
Workshop Technology : Part I, Materials and Processes, H. Wright Baker, (Review, 87)
Modernisation, Programme for Railway, 616
Modified Diesel Railcar for a Branch Line, (350)
Moisture Content Meter, Paneletrik OHG., 634
Mole Drainer, Tractor-Mounted Subsoiler and, Ransomes, Sims and Jefferies, Ltd., 24
Molybdenum, Arc-Cast, 621
Metallurgy of the Rarer Metals, L. Northcott, (Review, 695)
Monitor, Daylight, General Electric Co., Ltd., 483
Monomer, Styrene, Plant, Shell Chemical Co., Ltd., (470)
Monopolies Commission, References to the, 343
Monorail Line in Texas, Test, 421
Mont Cenis Tunnel, 22
Tunnel, Whymper and the, T. L. Watkins, (Letter, 86)
Morality, Trade, 75
Moriston and Garry Schemes, North of Scotland Hydro-Electric Board, 468, 503, 545, 577, 611, 647
Morro Bay Steam Power Station, Sea Water Evaporators at the, Pacific Gas and Electric Co., 315
Moselle Agreement, Signing, 827
Motion Radar, True, Decca Radar Ltd., 707
Motive Power for British Railways, (Leading Article, 254)
Power on Sea and Land, T. A. Crowe, 580, 614
Motor, Aircraft Rocket, (98)
Body Building, Mechanised, Briggs Motor Bodies Ltd., 817
Cycle Show, 701
Cycles, History and Development, C. F. Caunter, (Review, 474)
Driven Swing-Beam Press Brake, F. J. Edwards, Ltd., 8
Grader Equipped with Torque Converter, Le Tourneau-Westinghouse Company, 931
Industry and Trade Unions, (Leading Article, 217)
Roads, Urban, 440, 478
Show, Commercial, 392, 430, 470
Show, International, 552, 585
Show, Reflections, (Leading Article, 569)
Vehicle Industry, Redundancy in the, 99
Vehicle Production, 135
Motorised Glider, Martin Neulen K.G., 454
Motors, Rocket, S. Allen, 505
Motorway, London-Yorkshire, Modified Line, (745)
Scheme for Stretford-Worsley Section of Manchester Outer Ring Road, 721
Motorways, Conference on Urban, 394
Moulded Polythene Tube Fittings for Plumbing Systems, Imperial Chemical Industries Ltd., 671
Moulding Equipment, Automatic, Platt Malleable Castings Ltd., 668
Machines, Injection, Hopper Loader for, Fawcett Finney Ltd., (669)
Mounted in British Warship, Weapon, 198
"Mouse" Satellite, British, 153
Movements by Measurements in Drill Holes, Study of Underground Water, Gordon Newstead and J. C. Jaeger, 76
Mower, Mid-Mounted Industrial, Massey-Harris-Ferguson, Ltd., 23
Mowing Machine, Front-Mounted, Bomford Brothers, Ltd., 342
Much Talk and Colcutt, Too, (Leading Article, 181)
Multi-Roll Cold Rolling Mill, Schloemann Aktiengesellschaft, 246
Multi-Spindle Automatic Lathe, 207
Multi-Storey Garage, Proposal for Fully Automatic, Griggs and Son, Ltd., 607
Multi-Storey Steel Frame Buildings, Design of, (Report, 252)
Multiple-Purpose Plan for Permanently Controlling the Yellow River, Report on the, Teng Tse-Hui, (Review, 87)
Municipal Services and Public Works Congress and Exhibition, 643
Murdock, In Commemoration of Boulton, Watt and, (Leading Article, 390)
Myklestad's Method for Non-Uniform Vibrating Beams, R. E. D. Bishop, 838, 874

N

Nairobi, Electrical Equipment for Malting Plant in, East African Breweries, Ltd., 204
Natal, Irrigation Scheme, 673
Main Line, Doubling and Improvements on the, 134
National Boat Show, (932)
Bureau of Standards, U.S., New Site, 637
Diploma in Agricultural Engineering, (678)
Federation of Engineers' Tool Manufacturers, Annual Dinner, 549
Institute of Industrial Psychology, Annual Grant, 862
Insurance, Pensions and, 206
Management Conference, 451
Metal Congress and Exposition, 865, 901, 929
Research and Standardisation Activities, 740
Smoke Abatement Society, Conferences on Clean Air, 463
Natural Gas in Scotland, Use of, 835
Resources, Development of, (318)
Naval Building Programme, Plea for, (Leading Article, 570)
Surveying Service, Royal, 204
Navigation, Improvement Scheme for the River Lee, 219
Navigator Chain, North Scottish, 6
Navy, U.S., Shipbuilding Programme, 676
Necessity for Job Changing in Industry, 135
Needle, Cleopatra's, 622
Neglect of Transport, Britain's, (Leading Article, 2)
Netherlands Industries Fair, Utrecht, Royal, 65
Network Analysers, A.C., (Report, 252)
Neutron Sources, Loan of Plutonium-Beryllium, to Educational Institutions, 715
"Nevasa", Troopship, British Steam Navigation Co., Ltd., 162
Never be Short of Labour, (Leading Article, 289) ; W. F. Wright, (Letter, 550) ; E. G. Semler, (Letters, 619, 781) ; L. Gilling Smith, (Letter, 653) ; J. F. Perrin, (Letter, 695)
New Jersey, Burlington Power Station, 382
York, Engineering Societies Centre to Remain, 677
York International Airport, Long Range Radar Installation, General Electric Co., 420
Newcastle-upon-Tyne, Royal Show at, 23
Newhaven Harbour Extension, 696
Newport and Barry Docks, Improvement Schemes, 797
Newsprint Mill at Kemsley, Bowater Paper Corporation Ltd., 851, 888
Nickel, Mining for, Mond Nickel Co., Ltd., (265)
Plating for Engineers, Mond Nickel Co., Ltd., (904)
Noise, Reduction of Aircraft, 786
Nomogram, Control System, R. H. Macmillan, 195
Nomograms, A.B.A.C.S., A. Giet, (Review, 653)
Non-Ferrous Conduit and Conduit Fittings, (B.S.I., 72)
Metals and Alloys, Control of Quality in the Production of Wrought, (Review, 53)
Non-Magnetic Compressor, Hymatic Engineering Co., Ltd., (241)
Non-Uniform Vibrating Beams, Myklestad's Method, R. E. D. Bishop, 838, 874
Nonionic Chemical Plant, Cationic and, Hess Products, Ltd., 131
Nonsteady Flow in Ducts, Wave Diagrams for, George Rudinger, (Review, 20)
Normgerechte Erzeugnisse, DIN Bezugsquellen fur, W. Porstmann, (Review, 123)
North-East Coast Institution of Engineers and Shipbuilders, Cleavage Strength of Steel, T. M. Noren, (904) ; "M.S. Bergensfjord", Kaare Haug and N. Carter, (875) ; Opening General Meeting, 535 ; Parsons Memorial Lecture, (716) ; Report of the Council, (566) ; Some Safety Considerations of Nuclear Power Reactors, C. D. Boadle, (754)
German Experimental Reactor, 928
Scottish Navigator Chain, 6
Sea to Rhine Pipeline, 209
Northern Rhodesia, Water Development and Irrigation, (422)
Notable Locomotives of 1906, E. C. Poultney, 731, 767
Notch Ductile Steel for Bridges, (B.S.I., 195)
Notes on the Brittle Fracture of Steels, Sulzer Brothers, 443
Notion de la Regularite, Les Applications Scientifiques de la, P. Vernotte, (Review, 21)
Nouvelle Conception de la Resistance des Materiaux, A. Couard, (Review, 122)
Methode Approchee de Calcul des Couches Limites Laminaire et Turbulente en Ecoulement Compressible, (Report, 388)
Nozzle Blade, Turbine, Effusion Cooled, (Report, 897)

NUCLEAR ENERGY

A.E.C. Fellowships in Nuclear Energy Technology, 791
Absolute Calibration of the American Photoneutron Standard, 69
American Particle Accelerator for Japan, (903)
Anglo-German Atomic Energy Agreement, 183
Atomic Energy in India, 62
Energy Inventions, (214)
Structure and the Strength of Metals, N. F. Mott, (Review, 811)
Beneficient Atom, 600
Biological Effects of Atomic Radiation, (285)
Bradwell Nuclear Power Station, Central Electricity Authority, 98
British Germanium Power Rectifier Installation in France, (286)
Calder Hall, Kenneth Jay, (Review, 583)
Hall Heat Exchangers, 841
Hall No. 1 Reactor, Commissioning, Gordon Brown and K. L. Stretch, 722, 760
Hall Power Station, 464 (Colour Suppt.), 500, 537
Hall Reactor in Nuclear Power Generation, Place of, Sir Christopher Hinton, 726
Hall Reactors, B.N.E.C. Papers, 771, 802
C.E.R.N. European Proton Synchrotron, 243
Construction of Research Reactor at M.I.T., U.S. Atomic Energy Commission, 31
Constructional Progress at Chapel Cross Nuclear Power Station, Mitchell Construction Co., 94
Consulting Engineers and Nuclear Power Development, 571
Development of Gas-Cooled Reactors for Power Production, R. V. Moore, 881
Developments in Nuclear Power Engineering at Renfrew, Babcock and Wilcox Ltd., 697
"Dido" Research Reactors, 721, 812
Electricity, Magnetism and Atomic Physics, J. H. Fewkes and J. Yarwood, (Review, 781)
Fabrication of Fuel Elements for Nuclear Reactors in America, 751, 788
First German Reactor, Munich Technical University, 65
Harwell Reactor School, 355
Industrial Nuclear Facilities Works in Virginia, Babcock and Wilcox Co., 139, 176
Installation of Large Radioactive Source, 900
Irradiation Laboratory, 309
Issue of Construction Permits for Large-Scale Nuclear Power Stations, U.S. Atomic Energy Commission, 175
Loan of Plutonium-Beryllium Neutron Sources to Educational Institution, 715
Measurement of Cutting Tool Performance with Radioactive Isotopes, Alexander Duckham and Co., Ltd., 127
North German Experimental Reactor, 928
Nuclear Energy Trade Associations' Conference, 797
Engineering Course, (178)
Facilities Works in Virginia, Industrial, Babcock and Wilcox Co., 139, 176
Power, (Leading Article, 757)
Power Development, (Leading Article, 73)
Power for Ships, Sir Donald Anderson, 759
Power Stations, 300MW, for Great Britain, 891
Propulsion Plant for Merchant Vessel, Babcock and Wilcox Co., 791
Nucleonic Level Indicator, Baldwin Instrument Co., Ltd., 630
Oil Economics and Nuclear Power, (Leading Article, 833)
Out of Calder Hall, (Leading Article, 871)
Packaged Nuclear Reactors, Glenn L. Martin Company, 753
Progress Report on Nuclear Power, (Leading Article, 145)
Proposed Site for Nuclear Power Station in Somerset, 797
Radioactive Cobalt Therapy Unit, 42
"Waste" for Deep Therapy in Great Britain, 607
Reactor Conference at Harwell, U.K. Atomic Energy Authority, 291, 805
Release of Information on Atomic Energy, 873
Research Reactor for the Battelle Memorial Institute, 565
Scattering of Low-Energy Electrons, 563
Scientific Problems in Development of Nuclear Power, Sir John Cockcroft, 40
Significance of Calder Hall, (Leading Article, 461)
Sustained Operation of Submarine Reactor Plant, 385
Swiss-U.S. Atomic Agreement, 562
Symposium on Calder Works, British Nuclear Energy Conference, 468
Synchroton Particle Accelerator at Cambridge, 6,000MeV, 32
Welding at Calder Hall, P. D. Tatton-Brown, (Letter, 924)
Winfrith Heath Atomic Research Project, (932)
Work of the U.S. Atomic Energy Commission, 455, 491, 526
World Power, (Leading Article, 1)

Nylon Nuts, Talbot Stead Tube Co., Ltd., (932)

O

OBITUARY

Abell, T. B., 147
Bean, Alexander T., 607
Brunner, Adolf, 900
Coleman, D'Alton Corry, (602)
Cowlin, F. J., 39
Dana, R. W., 798
Davies, Arthur, (566)
Fairey, Sir Richard, 476
Gourley, H. J. F., 910
Guy, Sir Henry Lewis, 111
Hollings, James Spencer, 3
Hudson, Sir Austin, Bt., 797
Hunter, Philip Vassar, 571, 608
Lind, H. P. T., 885
Low, A. M., 391
MacGregor, Robert, (566)
Mackay, J. E., (106)
Masing, G., 525
Markland, A. D., (566)
Paterson, Sir William, 220
Proudlock-Dunbar, O. M., (602)
Pullin, Victor Edward, 220
Ridsdale, N. D., (286)
Rodger, John Wilfred, 255
Skelton, Engineer Vice-Admiral Sir Reginald, 356
Thornycroft, Oliver, 291
Wedgwood, Sir Ralph, 356
Observation of Defects in Crysta Lattices, Direct, 6
Observatory in Hawaii, Dedication of Mauna Loa, 601
Off-peak Electrical Heating, Thermodare Ltd., 483
Ohm-meter, Photo-electric Safety, Fairey Aviation Co., Ltd., 364
Oil Burners, High-Energy Spark Ignition Equipment for, Foster Transformers, Ltd., 310
Calculator, Fuel, Fina Petroleum Products Ltd., (602)
Consumption, (142)
Dispensing Vehicle, Bulk, Shell Mex and B.P. Ltd., 669
Economics and Nuclear Power, (Leading Article, 833)
Engined Vehicles, 50
Engines, Railway, Davey, Paxman and Co., Ltd., (42)
and Gas Industry, Italian, V. S. Swaminathan, 313, 344
and Industry, 332
Installation for Austria, Lubricating, Shell Austria A.G., 346
Mist Precipitator for Machine Shops, W. C. Holmes and Co., Ltd., (704)
and Petrol Prices, 825
Seal Factory, George Angus and Co., Ltd., (602) ; Opening, 672
Shortage and British Railways, 785
Supplies, 710
Supplies, Fuel, 785
and Swarf Separator, Continuous Automatic, Sharples Centrifuges Ltd., 515
Tankers, 862
Test Laboratory, 56 ; P. W. Harrison, (Letter, 122)
Well Drilling Package Units, Davey, Paxman and Co., Ltd., 706
Oiler for Mine Gauge Guide Ropes, (868)
Oilfield, Egmanton, British Petroleum Co., Ltd., (163)
Old Skills in New Settings, 378
Students University College London, Ifor Evans, (Letter, 402)
Omnibus Centenary, London, (Leading Article, 109)
Operation, One Hundred Years', London General Omnibus Co., 89
Omnibuses, London, 100 Years Ago, 462
One-Dimensional Transient Flow in a Pipe with Two Gases, R. S. Benson, 687

ONE HUNDRED YEARS AGO

Aluminium for Coinage, 873
Bessemer's Process, 290
Christmas Implement Show, 1856, 796
Coal Mines, Reports on, 570
Crystal Palace Water-Towers, 3
Electric Telegraph Across the Atlantic, 720
Fires in London, 355
Hostility of Certain Engineers to the Press, 606
Houseless Board of Works, 534
Institution of Civil Engineers, Proceedings, 183
of Mechanical Engineers, Meeting, 391
London Omnibuses, 462
Metropolitan Sewage, 498
New Westminster Bridge, 112
Railway Accidents, 758
Shipbuilding on the Tyne, 255
South Sewerage, The, 38
Steam Colliers' Association, Premium, 835
Culture Versus American Slavery, 642
Suez Canal, 218
To Our Readers, 908
Tour in the Provinces, 323
Trade Morality, 75
Unequal Railway Tariffs, 147
Weighing Machine at the G.P.O., 427
Westminster, New Bridge, 427

One Hundred Years' Omnibus Operation, London General Omnibus Co., 89
One-Tooth Pinions, W. A. Tuplin, (Letter, 438) ; F. E. Lindsay, (Letter, 368)
Ontario, Hydro-Electric Power, 535
Open Days, Chemical Research Laboratory, 509
Opencast Coal Production, 219
Open-Front, Geared Press, 100-Ton, Hordern, Mason and Edwards, Ltd., 49
Opening of Dry Dock on the River Tyne, Brigham and Cowan, Ltd., 413
Open-Side Planing Machine, Hydraulic, Butler Machine Tool Co., Ltd., 11
Opera House, Dusseldorf, Stage Lighting, 864
Operation and Application of Computers, E. C. Berkeley, and L. Wainwright, (Review, 695)
One Hundred Years' Omnibus, London General Omnibus Co., 89
Studies, Recording Techniques for Rolling Mill, E. A. Chard, W. W. Hastings and D. B. Nettell, 765
Sustained, of U.S. Submarine Reactor Plant, 385
Operations for Roadmaking Aggregates, Efficiency of Screening, F. A. Shergold and J. R. Hosking, 258
Opportunities for Graduates, (34)
Optical Instrument for Measuring Camber on Large Rolls, P. W. Harrison, 327
Orders for Abroad, Shipbuilding, 219
Ordnance Factories, Work Study, 488
Ore Deposits Near Salzgitter, Iron, 346
Organ Tuning, Sound System for Colston Hall, General Electric Co., Ltd., 241
Organisation for Standardisation, International, 157
Oscillating Shaving Press, Gaston E. Marbaix, Ltd., 45
Our Roads are Perilous, (Leading Article, 353) ; K. J. Wilkinson, (Letter, 438) ; W. A. Tuplin, (Letter, 510)
Out of Calder Hall, (Leading Article, 871)
Outlook, Automobile Industry, 898
Output and Stocks of Coal, 747
Overhaul Works and Bus Repair, Aldenham, 626
Overhead Electric Traction Systems, Copper and Cadmium-Copper Stranded Conductors for, (B.S.I., 108)
Overseas Civil Engineering Works, Conditions of Contract, (422)
Constructional Work by British Firms, 451

Scholarships, F.B.I., 112
Trade, 242, 311, 414, 451, 560, 710, 785, 862
Overshot Loader, David Brown Industries Ltd., 737
Oxidation Catalyst, Oxy-Catalyst Sales Ltd., 743
Resistant Silicon Aluminium Steels, (Report, 559)
Oxygen Plant Opened at Margam, Tonnage, British Oxygen Co., Ltd., 183

P

Pack, Hydraulic Power, Keelavite Rotary Pumps and Motors, Ltd., 50
Package Units, Oil Well Drilling, Davey, Paxman and Co., Ltd., 706
Packaged Nuclear Reactors, Glenn L. Martin Company, 753
Steam Generators, Small, J. Stone and Co. (Deptford), Ltd., 277
Packaging Research, Swedish Laboratory for, 30
Packing Containers, Collapsible, Postbox G.m.b.H., 419
Paddle Mixer, Road Note No. 21 : Tests on the Efficiency of a Twin-Shaft, (Report, 660)
Pageantry, Aluminium, 683
Painting Plant, Portable Spray, Alfred Bullows and Sons, Ltd., (638)
Palladium and Silver Contacts at Low Inductances, Metal Transfer between J. Riddlestone, (Review, 121)
Panel, Design, Transport Commission, 597
Panels, Heat Transfer, Imperial Chemical Industries, Ltd., 521
Paper from Bark-Stained Timber, Swedish Cellulose Company, 381
Paper-Insulated Wire-Armoured Cables for Use in Mines, (B.S.I., 544)
Papermaking Materials, Imports of, (214)
Parallel Sliding, Theory of Hydrodynamic Lubrication in, H. Blok, (Letter, 304) ; W. Lewicki, (Letter, 336)
Paris, Fourth Chemical, Rubber and Plastics Exhibition, 863
Terminus of the Chemin de Fer du Nord, 477
Parking in the U.S.A., H. J. H. Starks, 356, 396
Underground Urban, 835
Parsons and Marine Engineering Turbine Research and Development Association, Progress Report for 1955, 60
Particle Accelerator at Cambridge, 6000MeV Synchroton, 32
Accelerator for Japan, American, (903)
Parts, Handbook of Fastening and Jointing Metal, V. H. Laughner and A. D. Hargan, (Review, 53)
Party, Aeronautical Garden, 84
Passenger Engine, Express, 1879, 777
Train, Lightweight Electric, 280
Peace in the American Steel Industry, 420
Peeling Lathe, Ward-Leonard Control of Veneer, Tyne Timber and Veneers, Ltd., 96
Pendulum Clock Exhibition, 721
Starter Dynamo, Lightweight, Robert Bosch G.m.b.H., 787
Pension Schemes, Specimen, (132)
Pensions and National Insurance, 206
for Professional Engineers, 825
Performance Characteristics of Free Piston Compressor, B. W. Martin, 4
Criteria of Gas-Turbine Combustion Chambers, D. B. Spalding, (Review, 550)
with Radioactive Isotopes, Measurement of Cutting Tool, Alexander Duckham and Co., Ltd., 127
Perilous, Our Roads are, (Leading Article, 353) ; W. A. Tuplin, (Letter, 510) ; K. J. Wilkinson, (Letter, 438)
Permanent Magnets, Effect of Low Temperature on the Stability of, (Report, 216)
Permanently Controlling the Yellow River, Report on the Multiple-Purpose Plan for, Teng Tse-Hui, (Review, 87)
Permits for Large-Scale Nuclear Power Stations, Issue of Construction, U.S. Atomic Energy Commission, 175
Petrol and Oil Prices, 825
engine-driven Drill, Atlas Copco (Great Britain) Ltd., 737
proof Aprons, Plysec Products Ltd., (494)
Rationing, 721
Petroleum Equipment Manufactures, (214)
Equipment Manufacturers' Annual Dinner, 463
Gas, Liquefied, in Bulk for Industries in South Africa, 748
Phonograph, 622
Photo-electric Safety Ohm-meter, Fairey Aviation Co., Ltd., 364
Photography Congress, High Speed, (15)
Industrial, 174
Photo-Lithographic Rollers, Infra-Red Curing of Varnish and Lacquer, Metropolitan-Vickers Electrical Co., Ltd., 670
Photoneutron Standard, Absolute Calibration of the American, 69
Photothermoelasticity, (168)
Physicists, Engineers and, (Leading Article, 290) ; K. L. Stretch, (Letter, 368)
Physics and Technology, Sir George Thomson, 297
Pickling Plant, Works, Robert Dempster and Sons, Ltd., 660
Pick-Up Hitch, Automatic, Ford Motor Co., Ltd., 23
Picture Transmission by the Bell Telephone System, 829
Pictures, Aeronautical History, (Review, 781)
Pile Extractor, British Steel Piling Co., Ltd., 737
Pinions, One-Tooth, F. E. Lindsay, (Letter, 368) ; W. A. Tuplin, (Letter, 438)
Pipe and Tube Couplings, (Patents, 603, 717)
Coupling, Hydraulic, Kay and Co. (Engineers) Ltd., 377
with Two Gases, One-Dimensional Transient Flow in, R. S. Benson, 687
Pipes, Pitch-Impregnated Fibre Drain and Sewer, (B.S.I., 180)
Pipeline for Milk, 138
North Sea to Rhine, 209
Pipelines, Strainer for, Birfield Industries, Ltd., 412
Pipes for Sewerage, Pitch Fibre, Union Fibre Pipes (Great Britain) Ltd., 521
Piping Systems, Design of, (Review, 237)
Pipework, Plastic, Rhein-Plastic-Rohr G.m.b.H., 29
Piston Compressor, Performance Characteristics of Free, B. W. Martin, 4
Brake, Annular, Goodyear Tyre and Rubber Co., Ltd., 365
Brake, Annular, Palmer Tyre Co., Ltd., 365
Pitch Fibre Pipes for Sewerage, Union Fibre Pipes (Great Britain) Ltd., 521
Impregnated Fibre Drain and Sewer Pipes, (B.S.I., 180)
Pitsford Water Supply Scheme, 646
Place of Calder Hall Reactor in Nuclear Power Generation, Sir Christopher Hinton, 726
Placer, Compressed Air Concrete, Friedrich Wilh. Schwing G.m.b.H., 381
Plan for Permanently Controlling the Yellow River, Report on the Multiple-Purpose, Teng Tse-Hui, (Review, 87)
India's Second Five-Year, 171
Planing Machine, Hydraulic Open-Side, Butler Machine Tool Co., Ltd., 11
Plano-Milling Machine, Elgar Machine Tool Co., Ltd., 47
Planning and Housing Congress, Twenty-Third International Town, 65
Rule, Lift, Marryat and Scott, Ltd., (142)
Plant Investment, Tube Investments Ltd., 747
Plastic Coating of Metallic Articles, F. W. Berk and Co., Ltd., 823
Collapse Load, Effect of Distortion of a Stiff-Jointed Frame on its, J. W. H. King and D. E. Jenkins, (Letter, 20); M. R. Horne, (Letter, 87)
for Engineering Applications, T. and J. Walton, Ltd., (286)
German, 454
Lifeboat, Glass-Reinforced, Woodnutt and Co., Ltd., 376
Pipework, Rhein-Plastic-Rohr G.m.b.H., 29
Steel Jointing and Repairing Compound, (303)
Tapes, Irradiated, Tube Investments Ltd., (494)
Theory of Structures, Symposium, J. F. Baker, 484
Water Tanks, Glass-Reinforced, Microcell Ltd., 737
Plasticity, Introduction to, Aris Phillips, (Review, 20)
Plastics, Chemical and Rubber Exhibition at Paris, 863
Plate Shearing Machine, Heavy-Duty, Bronx Engineering Co., Ltd., 27
Plates, Blast Cleaning Equipment for Large, Vacu-Blast, Ltd., 169
Plating for Engineers, Nickel, Mond Nickel Co., Ltd., (904)
Plea for a Naval Building Programme, (Leading Article, 570)
Plough, 270
Ploughing Engine, 22, 158
Power for, D. R. Bomford, 556
Windlass, 306
Plumbing Systems, Moulded Polythene Tube Fittings, Imperial Chemical Industries, Ltd., 671
Plutonium-Beryllium Neutron Sources, Loan of, to Educational Institutions, 715
Pneumatic Conveying Equipment, Blaw Knox Ltd., (678)
Instrumentation, Negretti and Zambra Ltd., 463
Measurement of Turbine Shaft Displacement, C. A. Scoles, 763
Stop Valve, Hymatic Engineering Co., Ltd., (286)
Pockets, Industrial Temperature-Detecting Elements and, (B.S.I., 180)
Point for Electric Tools, Portable Power, Wolf Electric Tools, Ltd., (318)
Policy in Long Welded Rails, Development, 134
Reappraisal of British Defence, (Leading Article, 38)
Polish Railway Electrifications Plans, 490
Polymer Deposition, Horwitch Smith and Co., Ltd., 434
Polystyrene, Water Sorpotion in Heat-Treated, (Report, 252)
Polythene Tube Fittings, Moulded, for Plumbing Systems, Imperial Chemical Industries Ltd., 671
Population, Decrease in Continental Rural, 827
Populations in Germany, Growth of Urban, 712
Port Shepstone Bridge, 748
Portable Log Mill, Stenners of Tiverton Ltd., 824
Power Point for Electric Tools, Wolf Electric Tools, Ltd., (318)
Mine Winding Engine, 119
Spray Painting Plant, Alfred Bullows and Sons, Ltd., (638)
Portsmouth, Road Improvement at, 291
Portsmouth's Main Drainage, (932)
Portuguese Civil Engineering Studies, (602)
Positioner, Small Welding, Courtburn Positioners Ltd., 596
Post-Graduate Courses in Highway and Foundation Engineering, (214)
Study, Awards, 643
Post-War Development in the Coal-Mining Industry, A. Young, H. A. Longden and B. L. Metcalf, 918
Postal Mechanisation Exhibition, 451
Powder Metallurgy, Impregnation in Modern, 436
Metallurgy, Symposium, 1954, (Review, 653)
Powdered Metals, Roll Compacting of, 104
Power Cables, Development of, P. V. Hunter and J. T. Hazell, (Review, 236)
Conference, Fifth World, 13
Development, An Industrial Establishment for Nuclear, G. E. C. Simon-Carves Atomic Energy Group, 271
Development, Nuclear, (Leading Article, 73)
Development, Nuclear, Consulting Engineers and, 571
Drill Hammer, Electric High-Frequency, Robert Bosch G.m.b.H., 599
Drive, British Thomson-Houston Co., Ltd., 25
for British Railways, Motive, (Leading Article, 254)
Generation, Place of Calder Hall Reactor in Nuclear, Sir Christopher Hinton, 726
Hydro-Electric, in Ontario, 535
Motive, on Sea and Land, T. A. Crowe, 580, 614
Nuclear, (Leading Article, 757)
Pack, Hydraulic, Keelavite Rotary Pumps and Motors, Ltd., 50
Plant, Rocket, 117
Plant, Wind, (Patent, 639)
Plants, Steam, (Patent, 107)
for Ploughing, D. R. Bomford, 556
Point for Electric Tools, Portable, Wolf Electric Tools, Ltd., (318)
Production, Development of Gas-Cooled Reactors, R. V. Moore, 881
Production, Finnish Electric, 561
Progress Report on Nuclear, (Leading Article, 145)
Rectifier Installation in France, British Germanium, (286)
Scientific Problems in Development of Nuclear, Sir John Cockcroft, 40
for Ships, Nuclear, Sir Donald Anderson, 759
Station, Bradwell Nuclear, Central Electricity Authority, 98
Station, Burlington, New Jersey, 382
Station, Calder Hall, 464 (Colour Suppt.), 500, 537
Station, Carrington, Central Electricity Authority, 124
Station, Constructional Progress at Chapel Cross Nuclear, Mitchell Construction Co., 94
Station, Finlarig, North of Scotland Hydro-Electric Board, 25
Station, Fleetwood, Central Electricity Authority, 408
Station, High Marnham, Central Electricity Authority, 240
Station, Nuclear, in Somerset, Proposed Site, 797
Station, Sea Water Evaporators at the Morro Bay Steam, Pacific Gas and Electric Co., 315
Station, Two 120MW Sets at Belvedere, Central Electricity Authority, (178)
Station, Tuncbilek, 65
Stations, Issue of Construction Permits for Large-Scale Nuclear, U.S. Atomic Energy Commission, 175
Stations, 300MW Nuclear, for Great Britain, 891
Stations, 120MW Reheat Sets in C.E.A., 112
Swiss Water, 786
Transmission, (Patents, 107, 143, 215, 319, 567)
Unit for Aircraft, Gas-Turbine-Driven Auxiliary Electric, Solar Aircraft Co., 66
Utilisation of Swiss Hydro-Electric, 599
World, (Leading Article, 1)
Powdered or Granular Materials, Rotary Cooler for, Dunford and Elliott Process Engineering Ltd., 897
Practical Solution of Torsional Vibration Problems : Vol. I : Frequency Calculations, W. Ker Wilson, (Review, 52)
Practice of Lubrication for Engineers, Theory and, D. D. Fuller, (Review, 403)
Mechanical Engineering, C. H. Shoop and G. L. Tuve, (Review, 53)
Practices Act, Restrictive Trade, 206
Restrictive Trade, Act, 378
Pre-Apprentice Training, 721
Precipitation, Electrostatic, in Theory and Practice, An Introduction, H. E. Rose and A. J. Wood, (Review, 550)
Precipitator, Oil Mist, for Machine Shops, W. C. Holmes and Co., Ltd., (704)
Precision Ball Bearings, Machine for Determining the Vibration, H. L. Wunsch, 881
Gear Hobbing Machine, High, W. E. Sykes, Ltd., (566)
Internal Grinding Spindle, Reilly Engineering Ltd., 519
Tool-Room Slotting Machine, Butler Machine Tool Co., Ltd., 11
Prefabricated Storage Building of 100ft. Span, Taylor Woodrow (Building Exports) Ltd., 517
Preparation Plant, Coal, in South Wales, 909
Plant in Australia, Coal, Fraser and Chalmers Engineering Works, 486
Silicone Barrier, Lloyd-Hamol Ltd., (602)
Press, Automatic, Gaston E. Marbaix, Ltd., 45
Brake, Motor-Driven Swing-Beam, F. J. Edwards, Ltd., 8
Cylinder, Stainless Linered, English Steel Corporation, Ltd., 278
Hostility of Certain Engineers to, 606
Line for Automotive Wheel Production, Automatic Transfer Feed, Clearing Machine Corporation, 282
Oscillating Shaving, Gaston E. Marbaix, Ltd., 45
Straightening, Pitzmann and Pfeiffer K.G., 674
Universal Automatic, Stuart Davis, Ltd., 10
Pression Rapidement Variable, Etude de la Lubrification sous, (Report, 413)
Pressure, Local External, Strength of a Tube Under, G. R. Higginson, 428
Controllers, Slack-Diaphragm, George Kent Ltd., 595
Tests, Internal, on Steel Cylinders, 620
Prestressed Concrete Design, Theory ; Statically Determinate Structures, Henry J. Cowan, (Review, 475)
Price Stabilisation, 28
Prices Stabilised by I.C.I., 170
Basic Materials, 747
Gas, 28
Iron and Steel, 560, 898
Petrol and Oil, 825
Private Industry and, 99
and Wages, 414
Priest Rapids Dam in Washington, Construction, 565
Princess, Flying Boat, Saunders-Roe, (Report, 771)
Principles, Electrical, H. Cotton, (Review, 810)
of Turbo-Machinery, D. G. Shepherd, (Review, 159)
Printing Machine, 88
Private Industry and Prices, 99
Problem, Changing Nature of Fatigue, H. J. Gough, 359
of Rising Costs, Crossley Brothers Ltd., 597
Problems in Aerodynamics, Solution of, S. A. Urry, (Review, 369)
Automation and Labour, 279
in Development of Nuclear Power, Scientific, Sir John Cockcroft, 40
in Telecommunications, Solution, C. S. Henson, (Review, 369)
in the Purification of Sewage, Mr. Sciver, 355
Modern Dewatering Methods in Irrigation, S. Leliavsky, 114, 148
of Industrial Communities, Human, 39
Vol. I : Frequency Calculations, Practical Solution of Torsional Vibration, W. Ker Wilson, (Review, 52)
Procedures for Water Authorities, Emergency, (70)
Process, Aluminium Brightening, Erftwerk, 174
Bessemer's, 290
for Castings, Cleaning, Castingite, Ltd., 25
The Diecasting, H. K. Barton, (Review, 197)
This Really Disgusting, (Leading Article, 390)
Timer, Venner Ltd., (792)
Processes for Combating Fire-Damp and Coal Dust Explosions, Wet, H. Schultze-Rhonhof, (Review, 159)
Metal Finishing, Roto-Finish Ltd., 486
Modern Workshop Technology : Part I, Materials and, H. Wright Baker, (Review, 87)
Procurement, Aircraft, F. R. Banks, 535 ; (Letter, 619)
Producer Gas Trials, 238
Production, Automatic Transfer Feed Press Line for Automotive Wheel, Clearing Machine Corporation, 282
Coal, 898
Conference, Aircraft, 744
Finnish Electric Power, 561 .
Food, Electrical Research and, 759
Furnace, Horizontal Batch, Wild-Barfield Electric Furnaces, Ltd., 44
German Industrial Electricity, 675
Industrial, 488
Iron and Steel, 414, 560, 747
Iron Castings, 311, 755
Lathe for High-Speed, Crowthorne Engineering Co., Ltd., 48
Milling Machine, Automatic, Elgar Machine Tool Co., Ltd., 47
Motor Vehicle, 135
Opencast Coal, 219
Plants, Gas, (Patent, 639)
Power, Development of Gas-Cooled Reactors, R. V. Moore, 881
Research in America, 710
World Steel, 170
of Wrought Non-Ferrous Metals and Alloys, Control of Quality in the, (Review, 53)
Productivity, British Productivity Council, 61
Iron and Steel Industry's, 631
Railway, 522
and Wages, 488
Products Industries, Sweden's Forest, 281
Research, 1955, Forest, (Report, 288)
Professional Engineers and the Future, J. G. Orr, 693
Engineers, Pensions for, 825
Profile Facing Lathe, Charles Churchill and Co., Ltd., 43
Profiling Machine, Heavy-Duty, Selson Machine Tool Co., Ltd., 9
Profits and Trade, Guest, Keen and Nettlefolds, Ltd., 28
Programme, A Plea for a Naval Building, (Leading Article, 570)
for Railway Modernisation, 616
for the International Geophysical Year, U.S. Earth Satellite, 247
of the Bureau of Reclamation, New Construction, 249
Temperature Controller, Ether Ltd., 746
Progress at Chapel Cross Nuclear Power Station, Constructional, Mitchell Construction Co., 94
Helicopter, (178)
Report for 1955, Pametrada's, 60
Report on Nuclear Power, (Leading Article, 145)
Progression in the Long-Period Variable Stars, Atmospheric Freezing, Pulsations and Evolutionary, (Report, 131)
Project, Cross-Channel Cable, 323
Volta River, 112; C. L. Wiggins, (Letter, 402)
Projection, Automatic Cinematograph, 97
Projector, Large-Capacity, for Inspecting Turbine Blades, Optical Measuring Tools Ltd., 746
Promotion of Exports, (365)
Propagation by Tropospheric Scatter, Radio, British Research into, Marconi's Wireless Telegraph Co., Ltd., 595
Propeller, De Bay, 1880, 850
Propellers, Controllable-Pitch Marine, Escher Wyss A.G., 513
Proposal for a Fully Automatic Multi-Storey Garage, Griggs and Son, Ltd., 607
Proposed Route of Doncaster By-Pass, 75
Site for Nuclear Power Station in Somerset, 797
Propulsion Plant for Merchant Vessel, Nuclear, Babcock and Wilcox Co., 791
Prospect Park, Well at, 88
Prospects, Railway, (Leading Article, 605)
Protection by Coating, Surface, Norton Grinding Wheel Co., Ltd., 822
for Springs, Corrosion, Crane Packing Ltd., (602)
Metal, Corrosion Ltd., (932)
Protective Marking Warning Tape, Smith and Nephew, Ltd., (350)
Proton Synchrotron, C.E.R.N. European, 243
Provinces, Tour in the, 323
Provision of Dams in the Rhodesias, 172
Public Works and Municipal Services Congress and Exhibition, 643, 737
Pulp Board Washers, Wood, Tresises Drip Mat Co., (792)
Pulsations and Evolutionary Progression in the Long-Period Variable Stars, Atmospheric Freezing, (Report, 131)
Pumping Engine, 51

PUMPS

A.C. and D.C. Conduction Pumps for Liquid Metals, L. R. Blake, 541, 572
Centrifugal Pumping Set, Sigmund Pumps Ltd., 449

Distributor Pump for Diesel Engines, C.A.V. Ltd., 373
Double-Action Pump, 158
Gas Turbine Pumping Set, (546)
High-Temperature Circulating Pumps, Rhodes, Brydon and Youatt, Ltd., 203
Irrigation Scheme in Malaya, R. L. Akers and A. I. G. Robertson, 58
Modern Dewatering Methods in Irrigation Problems, S. Leliavsky, 114, 148
Patent, 639
Pumping Engine, 51
Plant for the Wallasey Impounding Station at Mersey Docks, 129
Rotative Pumping Engine, 435
Screw Pumps, Hamworthy Engineering Ltd., (792)
Self-Priming Contractors' Pump, Sigmund Pumps Ltd., 737
Steam Pumping Engine, Shand, Mason and Co., 696
Turbine and Pumping Houses, 235
Well at Prospect Park, 88

Purification of Sewage, Some Problems, Mr. Sciver, 355
Pyrite Plant Opened in South Australia, Modern, 205

Q

Quality in the Production of Wrought Non-Ferrous Metals and Alloys, Control of, (Review, 53)
Tests for Household Goods, 381
Quarry, Electrification of a Welsh Grit-Stone, Anglo-American Asphalt Co., Ltd., 95
Quarterly Magazine on Flexible Tubes and Hoses, Compoflex Co., Ltd., (699)
Que Que Water Scheme, 172

R

Race Ball and Roller Bearings, Wire, Eisenwerk Rothe Erde G.m.b.H., 525
Radar Equipment, Marine, Kelvin Hughes (Marine), Ltd., 239
Installation, Long Range, at New York International Airport, General Electric Co., Ltd., 420
Station on Georges Bank in the Atlantic Ocean, U.S. Air Force, 635
for Traffic Control, 900
True Motion, Decca Radar Ltd., 707
Radial Drilling Machine, James Archdale and Co., Ltd., 47
Radiant Heaters, Hanovia, 743
Radiating Enclosure, Heat Transfer to a Fluid Flowing in a Tube within, C. D. Weir, (Letter, 780)
Radiation, Biological Effects of Atomic, (285)
Radio Engineering, Use of Wind Tunnel Techniques in, J. M. Falconer, 266
Fifty Years of German Long Distance, 712
Propagation by Tropospheric Scatter, British Research into, Marconi's Wireless Telegraph Co., Ltd., 595
Show, The, 255
Telephony in Railway Marshalling, 634
Telescope, Bonn, 749
and Television Mast at Steinkimmen, 489
Radioactive Cobalt Therapy Unit, 42
Isotopes, Measurement of Cutting Tool Performance with, Alexander Duckham and Co., Ltd., 127
Source, Installation of, 900
"Waste" for Deep Therapy in Great Britain, 607
Radioactivity Measurements in Germany, 787
Railcar for a Branch Line, Modified Diesel, (350)
Railcars in Australia, British United Traction, Ltd., (34)
Inter-City Diesel, Western Region of British Railways, 164

RAILWAY GENERAL MATTERS

A.T.C. and the Milton Derailment, (Leading Article, 354)
Automatic Train Graphs, L. M. Ericsson, 674
Axles, (B.S.I., 544)
Barnes Station Accident Report, 157
Block Signalling Instrument of Unit Construction, 410
British Railways in Action, O. S. Nock, (Review, 848)
Railways and the Oil Shortage, 785
Careers for Engineers in Railway Service, (830)
Car-Sleeper Expresses on French Railways, (657)
Dangerous Railway Level Crossing Eliminated, S. Africa, 672
Development Engineers for British Railways, 835
Policy in Long Welded Rails, 134
Diesel and Electric Locomotive Building in Lancashire, English Electric Co., Ltd., 413
Electric Locomotives for Eire, Sulzer Brothers (London) Ltd., 485
Engine Manufacture at a British Locomotive Works, North British Locomotive Co., Ltd., 411
Engines for Rail Traction, (Leading Article, 719)
Maintenance Depot at Stratford, (318)
Traction, 63
Directory of Railway Officials and Year Book, 1956-57, 849
Double Lines from Pretoria and Bloemfontein, 673
Doubling and Improvements on the Natal Main Line, 134
Electrification of the Epping-Ongar Line, 643
Experimental B.R. Restaurant Buffet Cars, (178)
Fenchurch Street-Southend Electrification, 255
Ferrybridge Signalbox, Central Electricity Authority, (142)
Festiniog Railway, Vol. I, 1800-1889, James I. C. Boyd, (Review, 511)
Further French Locomotive Experiences, E. H. Livesay, 188, 221, 256, 292, 324, 366, 400; James Stokes, (Letter, 582); Edward H. Livesay, (Letters, 368, 474); W. D. Spencer, (Letter, 474)
French Railway Electrification, 490
German Railway Developments, 490
Goods Engine, Eight-Wheeled, 119
Inter-City Diesel Railcars, Western Region of British Railways, 164
Joint Consultation on British Railways, 279
Lifting and Tipping Goods Wagon, Two-Way, Siegener Eisenbedarf A.G. (S.E.A.G.), 30
Lightweight Electric Passenger Train, 280
Trains for Mersey Lines, (318)
Locomotive Engine, 270
Frame Slotting Machine, 22
Superheater, (Leading Article, 796)
Metropolitan Line Improvements, (60)
Mobile School for Railway Maintenance Staff, (458)
Modified Diesel Railcar for a Branch Line, (350)
Motive Power for British Railways, (Leading Article, 254)
New Johannesburg Station, 134
Notable Locomotives of 1906, E. C. Poultney, 731, 767
Patents, 567, 755, 933
Polish Railway Electrification Plans, 490
Pre-Apprentice Training, Scottish Region, British Railways, 721
Programme for Railway Modernisation, 616
Radio-Telephony in Railway Marshalling, 634
Railcars in Australia, British United Traction, Ltd., (34)
Railway Accident Reports, 75
Accidents, 1856, 758
Bridge, 404
Engineering, (Patents, 35, 179)
Oil Engines, Davey, Paxman and Co., Ltd., (42)
Productivity, 522
Prospects, (Leading Article, 605)
Soil Mechanics Laboratory, (157)
Rebuilding of Eindhoven Station, 826
Rebuilt Chapelon "Pacifics", Edward H. Livesey, (Letter, 734)
Reconstruction of Railway Bridge, North-Eastern Region of British Railways, (92)
Rejection of Development Schemes at Victoria Station, 499
Remote Control on the South African Railways, 673
S.A.R. Cape Development, 172
Signal Installation at Farringdon, (932)
Signalling Prospects, Railway, (Leading Article, 907)
Single-Rail Railway, 198
South African Railway Development, 134
Railways: General Manager's Report, 1955, 63
Steel Railway Sleepers, (B.S.I., 895)
Technical Information Exchange, Railway, 562
Tes of Monorail Line in Texas, 421
Track Lifting and Scarifying Equipment, 487
Unequal Railway Tariffs, 147
Wages, Railway, 61, 597, 862
West German Locomotives, 65

RAILWAY ELECTRIFICATION

Doubling and Improvements on the Natal Main Line, 134
Fenchurch Street-Southend Electrification, 255
French Railway Electrification, 490
Lightweight Electric Passenger Train, 280
Metropolitan Line Improvements, (60)
Polish Railway Electrification Plans, 490

Raising of a Canadian Bridge, 651
Ram Air Turbine, Plessey Co., Ltd., 365
Ramjet Engine, Bristol Aero-Engines, Ltd., 203
Range, Echo, and Sounding Fishing Equipment, Kelvin and Hughes (Marine) Ltd., 559
Rapidement Variable, Etude de la Lubrification sous Pression, (Report, 413)
Rarer Metals, Metallurgy of, No. 5 Molybdenum, L. Northcott, (Review, 695)
Rates, Changes in Wage, 28, 825
of Wages and Hours of Labour, Time, 28
Rationing, Petrol, 721
Raumen, Stromungsvorange in kunstlich belufteten, W. Linke, (Review, 159)
Rayon Cord Tyres, Courtaulds Ltd., (868)
Reactor, Commissioning of Calder Hall No. 1, Gordon Brown and K. L. Stretch, 722, 760
Conference at Harwell, U.K. Atomic Energy Authority, 291, 805
First German, Munich Technical College, 65
at Harwell, "Dido" Research, 812
at M.I.T., Construction of Research, U.S. Atomic Energy Commission, 31
North German Experimental, 928
Place of Calder Hall, in Nuclear Power Generation, Sir Christopher Hinton, 726
Plant, Submarine, Sustained Operation, U.S., 385
Research, for the Battelle Memorial Institute, 565
School, Harwell, 355
Reactors, Calder Hall, B.N.E.C. Papers, 771, 802
"Dido" Research, 721
Flux Losses and Forces, Iron-Cored, (Report, 388)
Nuclear, Fabrication of Fuel Elements in America, 751, 788
Packaged Nuclear, Glenn L. Martin Company, 753
for Power Production, Development of Gas-Cooled, R. V. Moore, 881
Readaption and Re-employment of Workers, (Report, 926)
Real Changes in Frequency, Test for Detecting, Stafford Beer, 798
Really Disgusting Process, This, (Leading Article, 390)
Reaping Machine, Steam, 477
Reappraisal of British Defence Policy, (Leading Article, 38)
Rear-Engined Double-Decker Bus, Leyland Motors, Ltd., 339
Rebuilding of Eindhoven Station, 826
Rebuilt Chapelon "Pacifics", Edward H. Livesey, (Letter, 734)
Received, Books, 21, 53, 87, 123, 159, 197, 237, 269, 305, 336, 369, 403, 475, 511, 550, 583, 653, 695, 735, 781, 811, 849, 887
Reciprocal Agreements on Social Security, (932)
Reconstruction of Railway Bridge, North-Eastern Region of British Railways, (92)
Record Attempt, Water Speed, (386)
Recording Techniques for Rolling Mill Operation Studies, E. A. Chard, W. W., Hasings and D. F. Nettell, 765
Rectangular-Polar Conversion Tables, E. H. Neville, (Review, 21)
Rectification of Large Cylinders, Nicol and Andrew Ltd., (422)
Rectifier Arc-Welding Set, Metropolitan-Vickers Electrical Co., Ltd., 310
Installation in France, British Germanium Power, (286)
and Transformer Factory Expansion, Hackbridge and Hewittic Electric Co., Ltd., 703
Rectifiers, Silicon Junction, British Thomson-Houston Co., Ltd., 484
Reduction of Aircraft Noise, 786
Redundancy in the Motor Vehicle Industry, 99
Re-employment and Readaption of Workers (Report, 926)
Re-erection of Temple Bar, 270
Reference Manual of German Machine Tools, (Report, 252)
References to the Monopolies Commission, 343
Refinery Gas, Surplus, 147
Reflections on the Motor Show, (Leading Article, 569)
Refraktionsmessungen, Zur Interpretation von seismischen, M. Weber, (Review, 123)
Refrigerated Vehicles, British Aluminium Co., Ltd., (442)
Refrigerating Apparatus, 435
Plants and Hot-Gas Engines, (Patent, 459)
Registering Restrictive Trading Agreements, 631
Regrouping Water Undertakings, (422), 463
Regularite, Les Applications Scientifiques de la Notion de la, P. Vernotte, (Review, 21)
Reheat Sets in C.E.A. Power Stations, 120MW, 112
Reinforced Concrete, Control of Cracks in, 33
Concrete Association, List of Members, 667
Concrete and Concrete, Glossary of Terms, (B.S.I., 805)
Concrete Construction, Stud Welding Application in, 285
Rubber Tyre Tracks, Massey-Harris-Ferguson, Ltd., 23
Reinforcing Rods, Straightening Bent, 599
Rejection of Development Schemes at Victoria Station, 499
of the New Barbican Scheme, 323
Relations, Labour, and Wages, 747
Release of Information on Atomic Energy, 873
Remote Control on the South African Railways, 673
Reading Inclinometer, Maihak A.G., 490
Renfrew, Developments in Nuclear Power, Babcock and Wilcox Ltd., 697
Reorganising Electricity Supply, (Leading Article, 795)
Repair, Bus, and Overhaul Works, Aldenham, 626
of Small Craft at Millwall, Slipway for, 683
Repairing Compound, Plastic Steel Jointing and, (303)
Report, Barnes Station Accident, 157
Cromwell Road, (Leading Article, 110)
Factory Inspector's, 825
1955, South African Railways: General Manager's, 63
on the Multiple-Purpose Plan for Permanently Controlling the Yellow River, Teng Tse-Hui, (Review, 87)
on Nuclear Power, Progress, (Leading Article, 145)
for 1955, Pametrada's Progress, 60
on the Steel Industry Dispute, 511
on Coal Mines, 570
Reports, Railway Accident, 75
Resaw, Band, with Hydraulically-Operated Feed, Stenners of Tiverton Ltd., 591
Research, Australian Aeronautical, 278
on Automobile Stability, 774, 806, 845, 879
on Boiler Availability, (118)
British, into Radio Propagation by Tropospheric Scatter, Marconi's Wireless Telegraph Co., Ltd., 595
Centre, Coke, 710
Centre, Swedish Forestry, 246
Centre, Timber, Timber Development Association, Ltd., 39
Conclusions from Road, (Leading Article, 182)
Defence, in Australia, (792)
Design, (95)
and Development, Expenditure on, D.S.I.R., 362
Digital Computer for, (422)
Directing, H. E. Wimperis, 372
Electrical, and Food Production, 759
Engine, Annual Report, B.I.C.E.R.A., (480)
Establishments, Directing, 28
1955, Forest Products, (Report, 288)
Laboratory, Chemical, Open Days, 509
Laboratory, Industrial, British Oxygen Research and Development Ltd., 517
Laboratory, Mechanical Engineering, 447
in Loose-Boundary Hydraulics, Hydraulics Research Station, 666
Missile, Lightweight High-Altitude, 753
National, and Standardisation Activities, 740
Notes, Canadian Building, (386)
Paper No. 36, Road, (Report, 771)
Production, in America, 710
Project, Winfrith Heath Atomic, (932)
Reactor for the Battelle Memorial Institute, 565
Reactor at Harwell, "Dido", 812
Reactor at M.I.T., Construction of, U.S. Atomic Energy Commission, 31
Reactors, "Dido", 721
Road, S. Grieveson, (Letter, 236)
in 1955, Road, 147
and Road Traffic, Sir Charles Goodeve, 835
Scholarships, British Broadcasting Corporation, (638)
Scientific and Industrial, South African, 415
Swedish Laboratory for Packaging, 30
and Tooth Gearing, S. A. Couling, 915
Reservoir, Foxcote, Binnie, Deacon and Gourley, (Letter, 695)
Foxcote, Homogeneous Earth-Fill Dam, 618
Residue Valuation, Copper, Metallic Extractors (Non-Ferrous), Ltd., (59)
Resistance, Hail, 172
des Materiaux, Nouvelle Conception de la, A. Couard, (Review, 122)
Resistivity Test Set, Semi-Conductor, Baird Associates Inc., 317
Resonance Stress Testing, B. Bramall, 224; R. P. N. Jones, (Letter, 402); Bernard Bramall, (Letter, 582)
Resources, Development of Natural, (318)
Mineral, W. K. Jones, 499
Water, Conserving, G. M. Binnie, 571
Response, Frequency, R. Oldenburger, (Review, 52)
Restaurant Buffet Cars, Experimental B.R., (178)
Restrained Corrugated Diaphragms, Theory of, C. B. Flindt, 193
Restraint, Wage, 451
Restrictions, Fuel, and Employment, 862
Restrictive Trade Practices Act, 206, 378
Trading Agreements, 785; Registering, 631
Retirement of Dr. S. F. Dorey, 643
Reversers, Thrust, Rolls-Royce, Ltd., 333
Reversing Rolling Mill Engine, 512
Reviews, Metallurgical, 437
Review of High-Temperature Technology, I. E. Campbell, (Review, 403)
Revised Course in Boilermakers' Work, (70)
Rhine Bridge, Mannheim-Ludwigshafen, Demag A.G., 174
Pipeline, North Sea to, 209
Rhodesia, Northern, Water Development and Irrigation, (442)
Rhodesias, Provision of Dams in the, 172
Ride, A Rural, (Leading Article, 1)
Rigging and Sails Exhibition, (458)
Right Bridge Decks Subjected to Abnormal Loading, Analysis, (Report, 746)
Rigs, Twin-Drill, for Trench Blasting Holes, Climax Rock Drill and Engineering Works Ltd., (702)
Ring Road, Motorway Scheme for Stretford-Worsley Section of Manchester Outer, 721
Rings, Sealing, Pioneer Oilsealing and Moulding Co., Ltd., (670)
Rising Costs, Problem, Crossley Brothers Ltd., 597
River, Kariba Hydro-Electric Scheme on the Zambesi, 155
Report on the Multiple-Purpose Plan for Permanently Controlling the Yellow, Teng Tse-Hui, (Review, 87)
Cut-offs in Modern Hydraulic Diversion Works on Alluvial, S. Leliavsky, 184, 228
Lech Hydro-Electric Scheme, Bayerische Wasserkraft-werke A.G., 173
Lee Navigation, Improvement Scheme for the, 219
Project, Volta, 112; C. L. Wiggins, (Letter, 402)
Trent, Reconstruction of the Cromwell Weir, (494)
Tyne, Opening of Dry Dock on the, Brigham and Cowan, Ltd., 413
Wear, Sunderland, Bridge Over, 1880, 850
Rivet Making Machine, 584
Setter, Desoutter Brothers Ltd., 365
Road Transport, (Patent, 755)

ROADS

Aggregates, Roadmaking, Efficiency of Screening Operations for, F. A. Shergold and J. R. Hosking, 258
Aluminium Road Bridge at Lunen, 711
Bicentenary of John Loudon MacAdam, 1756-1836, 395
Bituminous Roads Development Group, 710
British Road Services, 206
By-Pass Road at Borrowash, East Midlands, (203)
Cement and Concrete Association, Papers on Concrete Road and Airfield Construction, (530)
Conclusions from Road Research, (Leading Article, 182)
Concrete Runway and Road Construction, 665
Conference on Urban Motorways, 394
Cromwell Road Report, (Leading Article, 110)
Efficiency of Screening Operations for Road-making Aggregates, F. A. Shergold and J. R. Hosking, 258
European Road Traffic, 280
Great North Road Improvements, 219
How to Avoid Building New Roads, D. L. Reeves, (Letter, 694); G. Lyon, (Letter, 810)
London-Yorkshire Motorway, Modified Line, (745)
Medway Towns By-Pass, (422)
Motorway Scheme for Stretford-Worsley Section of Manchester Outer Ring Road, 721
Our Roads are Perilous, (Leading Article, 353); K. J. Wilkinson, (Letter, 438); W. A. Tuplin, (Letter, 510)
Parking in the U.S.A., H. J. H. Starks, 356, 396
Post-Graduate Courses in Highway and Foundation Engineering, (214)
Proposed Route of Doncaster By-Pass, 75
Radar for Traffic Control, 900
Research and Road Traffic, Sir Charles Goodeve, 835
Road Improvement at Portsmouth, 291
Note No. 21, Tests on the Efficiency of a Twinshaft Paddle Mixer, (Report, 660)
Research, S. Grieveson, (Letter, 236)
Research in 1955, 147
Research Paper No. 36, (Report, 771)
Statistics, 535
Transport, (Patents, 423, 793, 905)
Scottish Roads, British Road Federation, (409)
Speed and Safety, 183
Street Lighting and Safety, 759

Summer School in Highway Engineering, (167)
Timmelsjoch Road, The, 281
Traffic Arteries in Large Towns, (Leading Article, 425)
Survey of the Cromwell Road Extension Scheme, 39
Trouble for Toll Roads ? 175
Urban Motor Roads, 440, 478

Rock Tunnelling on the Ume River, 787
Rocket Engines, D. Napier and Son, Ltd., 333
Motor, Aircraft, (98)
Motors, S. Allen, 505
Power Plant, 117
Rockets, Rotating-wing Aircraft with Booster, Saunders-Roe, Ltd., 333
and Guided Missiles, International Congress, 899
Rockhampton, Fitzroy Bridge, 1881, 925
Rods, Reinforcing, Straightening Bent, 599
Roll Compacting of Powdered Metals, 104
Lathe, Heavy-Duty Roughing, Maschinenfabrik Herkules, 30
Roller and Ball Bearings, Wire Race, Eisenwerk Rothe Erde G.m.b.H., 525
Bearings, Heavy Tapered, Factory, British Timken Ltd., 819
Straightening Machine, Bronx Engineering Co., Ltd., 708
Rollers, Photo-Lithographic, Infra-Red Curing of Varnish and Lacquer, Metropolitan-Vickers Electrical Co., Ltd., 670
Rolling Bridge, 235
Machine, Spline, Dowding and Doll, Ltd., 44
Mill, Back-up-Driven Four-High Cold Strip, Stanat Manufacturing Co., Inc., 601
Mill Engine, 306
Mill Engine, Reversing, 512
Mill, Erection of Broad-Strip, Hahnsche Werke A.G., 102
Mill, Multi-Roll Cold, Schloemann Aktiengesellschaft, 246
Mill Operation Studies, Recording Techniques, E. A. Charf, W. W. Hastings and D. F. Nettell, 765
and Sheet Finishing Equipment, Wide-Strip, H. H. Ascough, 765
Spline, Ford Motor Co., Ltd., 450
Stock in the United States, High-Speed Lightweight, (Leading Article, 218)
Rolls, Optical Instrument for Measuring Camber on Large, P. W. Harrison, 327
Roof, Cantilevered Stand, W. S. Atkins and Partners, 27
Room, Banker's Strong, 370
Rope Works, Wire, William Cooke and Co., Ltd., 309
Ropes, Oiler for Mine Gauge Guide, (868)
Rotary Cooler for Granular or Powdered Materials, Dunford and Elliott Process Engineering Ltd., 897
Rotating-wing Aircraft with Booster Rockets, Saunders-Roe, Ltd., 333
Rotative Pumping Engine, 435
Roughing Roll Lathe, Heavy-Duty, Maschinenfabrik Herkules, 30
Roughness Specimens, Surface, Rupert and Co., Ltd., (6)
Round Hard Drawn Brass Wire for Springs, (B.S.I., 861)
Rounded Corners, Angled Holes with, 246
Route of Doncaster By-Pass, Proposed, 75
Surveys and Construction, H. Rubey, (Review, 336)
Royal Aeronautical Society, Aeronautical Development in Australia, L. P. Coombes, 741 ; Aeronautical Garden Party, 84 ; Air Conditioning in Aircraft, E. W. Still, 683 ; Aircraft Materials, A. J. Murphy, 885 ; Aircraft Procurement, F. R. Banks, 535 ; London Airport, Sir John D'Albiac, 643 ; Transonic Tunnel Testing Technique, H. F. Vessey, 921
Agricultural Society, (Leading Article, 872) ; Ditch Cleaning Machinery Competition, (784) ; Royal Show at Newcastle-upon-Tyne, 23
Aquarium and Winter Garden, 404
Naval Surveying Service, 204
Netherlands Industries Fair, Utrecht, 65
Show at Newcastle-upon-Tyne, 23
Society, Antarctic Expedition, 683 ; Awards, (754)
Rubber, Chemical and Plastics Exhibition at Paris, 863
in Engineering, (205)
Methods for Testing Vulcanised, (B.S.I., 36, 108, 921)
Polymer Corporation Ltd., 863
Suspension System, Variable Spring Rate, Metalastik Ltd., 470
Tubing and Bungs for Laboratory Use, (B.S.I., 805)
Tyre Tracks, Reinforced, Massey-Harris-Ferguson, Ltd., 23
Rubbing Leathers, Dimensions of Condenser, (B.S.I., 36)
Rule, Lift Planning, Marryat and Scott, Ltd., (142)
Runway and Road Construction, Concrete, 665
Rural Engineers, (Leading Article, 642)
Population, Decrease in Continental, 827
Ride, A, (Leading Article, 1)
Russia, Engineering Education in, 391
Steel Experts Visit to, (70)
and Western Engineers, (Leading Article, 681)
Russian Hydro-Electric Schemes, British Engineers Visit, 535
Warship "Peter the Great", 1881, 925

S

S.A.R. Cape Development, 172
Safety Ohm-meter, Photo-electric, Fairey Aviation Co., Ltd., 364
Speed and, 183
and Street Lighting, W. Robinson, 759
Sails and Rigging Exhibition, (458)
Salisbury, Superphosphate Plant for, African Explosives and Chemical Industries (Rhodesia), Ltd., 63
Salzgitter, Iron Ore Deposits Near, 346
Sampling Water Used in Industry, Methods, (B.S.I., 776)
Sands, Beach, Titanium Oxide from, 776
Satellite, British "Mouse", 153
Programme for the International Geophysical Year, U.S. Earth, 247
Saunders-Roe "Princess" Flying Boat, (Report, 771)
Sawing Machine, Heavy-Duty High-Speed Cold, Clifton and Baird, Ltd., 47
Scaling of Cobalt-Chromium Alloys, 436
Scarifying and Track Lifting Equipment, 487
Scatter, British Research into Radio Propagation by Tropospheric, Marconi's Wireless Telegraph Co., Ltd., 595
of Wireless Waves, Forward, 210
Scattering of Low Energy Electrons, 563
Schichtgrenzen eines tertiaren Plateaus mit Quartarbedeckung, Geoelektrische Bestimmung von, M. Weber, (Review, 305)
Schiffbau und Schiffsmachinenbau, "Schiffstechnik", Forschungshefte fur, (Review, 123)
Schiffsmachinenbau, "Schiffstechnik", Forschungshefte fur Schiffbau und, (Review, 123)
"Schiffstechnik", Forschungshefte fur Schiffbau und Schiffsmachinenbau, (Review, 123)
Scholarship, Travelling, Sir Alfred Herbert, 535
Scholarships, F.B.I. Overseas, 112
Research, British Broadcasting Corporation, (638)
Shipping Federation, 401
University, National Coal Board, (868)
School for Apprentices, Training, British Oxygen Engineering Ltd., (792)
Harwell Reactor, 355
in Highway Engineering, Summer, (167)
Leavers, Aspirations of, 451
Mobile, for Railway Maintenance Staff, (458)
Summer, Mining Industry's, 378
Science and Calculations, Engineering, W. E. Fisher, (Review, 887)
and Engineering, Basic Mathematics for, P. G. Andres, H. J. Miser and H. Reingold, (Review, 122)
and Practice of Welding, A. C. Davis, (Review, 305)
Convention of Chemical, 209
Scientific and Engineering Manpower, 607
and Industrial Research in South Africa, 415
Problems in Development of Nuclear Power, Sir John Cockcroft, 40
Scientifiques de la Notion de la Regularite, Les Applications, P. Vernotte, (Review, 21)
Scoop, Steam, 736
Scoring and Surface Damage, 922
Scotland, Use of Natural Gas, 835
Scottish Navigator Chain, North, 6
Roads, (409)
Scrap Consumption, German, 900
Screening and Filtering Equipment, Test House for Grinding, International Combustion, Ltd., 166
Operations for Roadmaking Aggregates, Efficiency of, F. A. Shergold and J. R. Hosking, 258
Screens and Separators, (Patent, 831)
Screw Machine, Automatic, Selson Machine Tool Co., Ltd., 9
Pumps, Hamworthy Engineering Ltd., (792)
Thread Tools, Manual, Firth Brown Tools Ltd., (858)
Screwed Shank Tools, Chuck for, B.S.A. Tools Ltd., 709
Sea and Land, Motive Power on, T. A. Crowe, 580, 614
Energy from the, J. H. M. Sykes, 54
Gas Turbine at, (Leading Article, 534)
Survival at, 169
to Rhine Pipeline, North, 209
Water Evaporators at the Morro Bay Steam Power Station, Pacific Gas and Electric Co., 315
Seal, Oil, Factory, George Angus and Co., Ltd., (602) ; Opening, 672
Self-Adhesive, Sealdraught, Ltd., (202)
Sealing Rings, Pioneer Oilsealing and Moulding Co., Ltd., (670)
Seating, Hydraulic Self-Aligning, A. C. Carter, 232
Second Five-Year Plan, India's, 171
Secondary Standards of Light, Calibration, 909
Sections, Body-Building, Northern Aluminium Co., Ltd., 521
The Design of Wing, T. Nonweiler, (Review, 550)
Security, Social, Reciprocal Agreements, (932)
Selected Combustion Problems, 11 : Transport Phenomena ; Ignition ; Altitude Behaviour and Scaling of Aero Engines, (Review, 583)
Selection and Training of Foremen in Europe, Sven Grabe and Paul Silberer, (Review, 924)
Self-Adhesive Seal, Sealdraught, Ltd., (202
Self-Adjusting Arcs, (Report, 19)
Self-Aligning Seating, Hydraulic, A. C. Carter, 232
Self-Contained Turbo-Chargers, Brush Electrical Engineering Co., Ltd., 57
Self-Priming Contractors' Pump, Sigmund Pumps Ltd., 737
Self-Propelled Combine-Harvester, Massey-Harris-Ferguson, Ltd., 23
Self-Tensioning Belt Drive, Leder and Cie Ltd., 675
Semi-Conductor Resistivity Test Set, Baird Associates Inc., 317
Semi-Conductors, Progress in, A. F. Gibson, R. E. Burgess and P. Aigrain, (Review, 695)
Separator, Continuous Automatic Swarf and Oil, Sharples Centrifuges Ltd., 515
Separators and Screens, (Patent, 831)
Service, Contracts of, 631
New Turbine Steamers for Heysham-Belfast, G. W. Tripp, 307
Royal Naval Surveying, 204
Technical Advisory, (422)
Set, Metal-Rectifier Welding, Quasi-Arc, Ltd., 238
Rectifier Arc-Welding, Metropolitan-Vickers Electrical Co., Ltd., 310
Semi-Conductor Resistivity Test, Baird Associates Inc., 317
Suspension Undergear, Welding, Quasi-Arc, Ltd., (350)
Sets at Belvedere Power Station, Two 120MW, Central Electricity Authority, (178)
in C.E.A. Power Stations, 120MW Reheat, 112
Setter, Rivet, Desoutter Brothers Ltd., 365
Settlement of B.M.C. Dispute, 242
Severn, Bridge Over, 370
Sewage and Other Water-borne Wastes, Disposal, Karl Imhoff, W. J. Muller and D. K. B. Thistlethwayte, (Review, 735)
Disposal Works, Maritzburg, 673
Metropolitan, 498
Some Problems in the Purification, Mr. Sciver, 355
The Disposal of, T. H. P. Veal, (Review, 87)
Sewer Pipes, Pitch-Impregnated Fibre Drain and, (B.S.I., 180)
Sewerage, Pitch Fibre Pipes for, Union Fibre Pipes (Great Britain) Ltd., 521
From Surrey, 38
Shaft Displacement, Turbine, Pneumatic Measurement, C. A. Scoles, 763
Grinding Machine, Gear Grinding Co., Ltd., 44
Shafts, Balancing Machine for Cardan, Carl Schenck G.m.b.H., 102
Shank Tools, Screwed, Chuck for, B.S.A. Tools Ltd., 709
Shaper, Double-Spindle Automatic, Thomas White and Sons, Ltd., 11
Sharing the Blame, 399
Sharpening Machine, Tungsten Carbide Tipped Tool, George Cohen, Sons and Co., Ltd., 10
Shaving and Hobbing Machine, Automatic Cycle Gear, David Brown Machine Tool Division, 926
Press, Oscillating, Gaston E. Marbaix, Ltd., 45
Shearing Machine, Heavy-Duty Plate, Bronx Engineering Co., Ltd., 27
Sheath of Electric Cells, P.V.C. Insulation and, (B.S.I., 72)
Sheathing, Aluminium, Corrosheath Ltd., 487
Shed, Cooling System for Weaving, Thomas Longworth (Sales), Ltd., 310
Timber Storage, Beves and Co., Ltd., 407
Sheet Finishing Equipment and Wide-Strip Rolling, H. H. Ascough, 765
Sheets of British Standards, Summary, 135

SHIPS AND SHIPBUILDING

Association Technique Maritime et Aeronautique, 136
British Shipping, Chamber of Shipping, Annual Dinner, 560
Clyde Shipyard Strike, 343, 414
Cold Hydraulic Ship Frame Bender, Scottish Machine Tool Corporation Ltd., 520
Controllable-Pitch Marine Propellers, Escher Wyss A.G., 513
Cunard Liner "Carinthia", John Brown and Co. (Clydebank), Ltd., 199
De Bay Propeller, 1880, 850
Exhibition of Sails and Rigging, (458)
Expansion of Swedish Shipyard, 138
Experimental High Speed Launch, Vosper, Ltd., 26
Extensions at Dutch Shipyard, 827
Fires in Ships, Symposium, 670
Gas Turbine at Sea, (Leading Article, 534)
German Super Tankers, 675
Tanker Line, 209
Glass-Reinforced Plastic Lifeboat, Woodnutt and Co., Ltd., 376
Hull Structures, J. Turnbull, (932)
Launch of "Mayflower II", J. W. and A. Upham Ltd., 427
Launches and Trial Trips, 36, 72, 144, 180, 216, 320, 352, 496, 532, 568, 604, 716, 870, 906, 934
Lloyd's Shipbuilding Returns, 219, 571 ; Wreck Returns, 178, 530, 792
Low-Power Marine Diesel Engines, Petters Ltd., 515
Manchester Ship Canal Tug "Sabre", P. K. Harris (Shipbuilders), Ltd., 342
Marine Engineering, (Patents, 107, 179, 351, 387)
Radar Equipment, Kelvin Hughes (Marine) Ltd., 239
Steam Turbine, A. W. Davis, (904)
Motive Power on Sea and Land, T. A. Crowe, 580, 614
National Boat Show, (932)
North Scottish Navigator Chain, 6
Nuclear Power for Ships, Sir Donald Anderson, 759
Propulsion Plant for Merchant Vessel, Babcock and Wilcox Company, 791
Oil Tankers, 862
Plea for a Naval Building Programme, (Leading Article, 570)
Royal Naval Engineering College at Manadon, 75
Naval Surveying Service, 204
Ship and Boat Builder, Annual Review, 1956, 849
Shipbuilding Orders for Abroad, 219
on the Tyne, 255
Works at Barrow-in-Furness, 809
Shipping Federation Scholarships, 401
Ships, Speed Measurement, D. A. Senior, 80
Slipway for Repair of Small Craft at Millwall, 683
Statistical Tables, Lloyd's Register, 835
Steamship "Bessemer", 337
Stern-wheel Mail Steamer, 1880, 809
Survival at Sea, 169
Sustained Operation of U.S. Submarine Reactor Plant, 385
Swedish Launches and Deliveries, 674
Trials of Turbo-Charged Two-Stroke Marine Diesel Engine, Gebr. Sulzer A.G., 245; Correction, (678)
Troopship "Nevasa", British India Steam Navigation Co., Ltd., 162
Turbine Steamers for Heysham-Belfast Service, New, G. W. Tripp, 307
Twin-Screw Liner "Camito", Alexander Stephen and Sons, Ltd., 860
Tug "Takoradi", Philip and Son, Ltd., 484
Warship, "Duilio", Italian, 654
Water Speed Record Attempt, (386)
Weapon Mounted in British Warship, 198
West German Shipbuilding, 102

NAMED VESSELS
Bergensfjord, M.S., (875)
"Bessemer", Steamship, 337
Camito, Twin-Screw Liner, Alexander Stephen and Sons, Ltd., 860
"Duke of Argyll", Harland and Wolff, Ltd., 307
"Duke of Lancaster", Harland and Wolff, Ltd., 307
"Duke of Rothesay", William Denny and Bros., Ltd., 307
"Girdle Ness", H.M.S., 163
Livadia, Yacht, 1880, 850
Lord of the Isles, Clyde Steamship, 584
Mayflower II, Launch, J. W. and A. Upham Ltd., 427
"Nevasa", Troopship, British Steam Navigation Co., Ltd., 162
"Sabre", Manchester Ship Canal Tug, P. K. Harris (Shipbuilders), Ltd., 342
Takoradi, Twin Screw Tug, Philip and Son, Ltd., 484

NAVAL MATTERS
"Carinthia", Cunard Liner, John Brown and Co., (Clydebank), Ltd., 199
Deep Diving and Life-Saving from Submarines, 702
"Girdle Ness", H.M.S., 163
Jane's Fighting Ships, 1956-57, (Review, 848)
Plea for a Naval Building Programme, (Leading Article, 570)
Royal Naval Engineering College at Manadon, 75
Royal Naval Surveying Service, 204
Russian Warship "Peter the Great", 1881, 925
Shipping Federation Scholarships, 401
Ships' Speed Measurement, D. A. Senior, 80
Shipyard, Expansion of Swedish, 138
Shipyard Strike, Clyde, 343
Survival at Sea, 169
Sustained Operation of U.S. Submarine Reactor Plant, 385
U.S. Navy Shipbuilding Programme, 676
U.S. Warships—Environmental Aspects of Improved Habitability, 745
Weapon Mounted in British Warship, 198

Shock Absorbers, (Patent, 679)
Shop, Machine, for Apprentice Training, General Electric Co., Ltd., (386)
Short of Labour, Never be, (Leading Article, 289) ; L. Gilling Smith, (Letter, 653) ; J. F. Perrin, (Letter, 695) ; E. G. Semler, (Letters, 619, 781) ; W. F. Wright, (Letter, 550)
Shortage, Oil, and British Railways, 785
Shot Cleaning for Heat Exchanger Surfaces, Keith Blackman Ltd., (678)
Show at Newcastle-upon-Tyne, Royal, 23
Commercial Motor, 392, 430, 470
International Motor, 552, 585
Motor-Cycle, 701
National Boat, (932)
Reflections on the Motor, (Leading Article, 569)
Smithfield, Machinery, 782, 815
The Radio, 255
Shovel, Hydraulic Loading, F. E. Weatherill Ltd., 737
Skid-, International Harvester Co., of Great Britain, Ltd., 737
Sieves and Filters, (Patent, 459)
Signal Installation at Farringdon, (932)
Signalbox, Ferrybridge, Central Electricity Authority, (142)
Signalling Instrument of Unit Construction, Block, 410
Lamp Batteries, (34)
Prospects, Railway, (Leading Article, 907)
Significance of Calder Hall, (Leading Article, 461)
Signing of Moselle Agreement, 827
Silesia, Upper, Slag Heap Reclamation, 675
Silicon and Aluminium in Hot-Rolled Steel, 778
Aluminium Steel, Oxidation Resistant, (Report, 559)
Carbide, 779
Junction Rectifiers, British Thomson-Houston Co., Ltd., 484
Silicone Barrier Preparation, Lloyd-Hamol Ltd., (602)
Silo, Cement, Eonit Engineering Co., Ltd., 737
Silver Contacts at Low Inductances, Metal Transfer between Palladium and J. Riddlestone, (Review, 121)
Medal Awards, H. Leverton and Co., Ltd., Atkinson's Agricultural Appliances, Ltd., T. T. Boughton and Sons, Ltd., Gascoignes (Reading), Ltd., Scottish Mechanical Light Industries, Ltd., 25
Since Bessemer, Steelmaking, Sir Charles Goodeve, 329
Single-Rail Railway, 198
Single-Spool Turbo-Prop, (90)
Site for Nuclear Power Station in Somerset, Proposed, 797
Situation, The Economic, 343
Skid or Not to Skid, To, (Leading Article, 606)
Skid-Shovel, International Harvester Co. of Great Britain Ltd., 737
Skills, Old, in New Setting, 378
Slabbing Mill begins Operation, Dortmund-Horder Hutten-Union, 454
Mill, Design of Ingots for High Output, H. G. Jones, P. D. Dickerson and D. T. Steer, 765
Mill Drive, Abbey Works, Steel Company of Wales, 98
Mill, Time Characteristics, H. G. Jones, D. T. Steer and P. D. Dickerson, 765
Slack-Diaphragm Pressure Controllers, George Kent, Ltd., 595
Slag Heap Reclamation in Upper Silesia, 675
Sleepers, Steel Railway, (B.S.I., 895)
Sliding, Theory of Hydrodynamic Lubrication in Parallel, H. Blok, (Letter, 304) ; W. Lewicki, (Letter, 336)
Slipway for Repair of Small Craft at Millwall, 683
Slotted Angles, Dexion Ltd., (494)
Slotting Machine, W. Collier and Co., 551
Machine, Locomotive Frame, 22
Machine, Precision Tool-Room, Butler Machine Tool Co., Ltd., 11
Smithfield Show, Machinery, 782, 815

Smoke Density Meter, Bailey Meters and Controls, Ltd., (318)
Snap-Action Limit Switch, Sharp Control Gear, Ltd., 133
Soap Amalgamator, Henry Simon, Ltd., 409
Social Security, Reciprocal Agreements, (932)
Societies Centre, Engineering, to Remain in New York, 677
Society of British Aircraft Constructors, Flying Display and Exhibition, 333, 363 ; Materials Data Sheets, (859)
of Chemical Industry, Annual Meeting, 92
of Motor Manufacturers and Traders, Demonstration of Military Vehicles, 518
Sodium, Metallurgical Uses, 923
Soil Foundation Failures, 134
Mechanics Laboratory, Railway, (157)
Soldering, Aluminium Cable, Johnson and Phillips, Ltd., 96
Solution of Problems in Aerodynamics, S. A. Urry, (Review, 369)
of Problems in Telecommunications, C. S. Henson, (Review, 369)
of Torsional Vibration Problems : Vol. I : Frequency Calculations, Practical, W. Ker Wilson, (Review, 52)
Somerset, Proposed Site for Nuclear Power Station, 797
Some Uses of a University, R. P. N. Jones, 152
Sorption in Heat-Treated Polystyrene, Water, (Report, 252)
Sound System for Colston Hall Organ Tuning, General Electric Co., Ltd., 241
Sounding and Echo Range Fishing Equipment, Kelvin and Hughes (Marine) Ltd., 559
South Africa, Liquefied Petroleum Gas for Industries, 748
Scientific and Industrial Research, 415
South African Railway Development, 134
Railways : General Manager's Report, 1955, 63
Railways, Remote Control, 673
South Australia, Modern Pyrite Plant Opened in, 205
Wales, Coal Preparation Plant, 909
Southend Electrification, Fenchurch Street, 255
Spark Ignition Equipment for Oil Burners, High-Energy, Foster Transformers, Ltd., 310
Spatialment Homogene, Sur la Turbulence, (Report, 413)
Special Purpose Machine, Pollard and Co., Ltd., 48
Purpose Machines, Unit Head for use on Transfer and, Brooke Tool Manufacturing Co., Ltd., 7
Specimen Pension Schemes, (132)
Specimens, Surface Roughness, Rupert and Co., Ltd., (6)
Spectra in Long-Period Variable Stars, Combination, (Report, 288)
Speed and Safety, 183
Increase, Diesel Engine, Davey, Paxman and Co., Ltd., (932)
Launch, Experimental High, Vosper, Ltd., 26
Measurement, Ships', D. A. Senior, 80
Photography Congress, High, (15)
Record, Attempt, Water, (386)
Spindle Chucking Lathe, Vertical, Charles Churchill and Co., Ltd., 43
Precision Internal Grinding, Reilly Engineering Ltd., 519
Spinner Broadcaster, Tractor-Mounted, Massey-Harris-Ferguson, Ltd., 23
Spline Hobbing Machine, Automatic, Elgar Machine Tool Co., Ltd., 47
Rolling, Ford Motor Co., Ltd., 450
Rolling Machine, Dowding and Doll, Ltd., 44
Spray Painting Plant, Portable, Alfred Bullows and Sons, Ltd., (638)
Sprayers and Burners, (Patent, 639)
Spring, Constant Tension, Tensator, Ltd., 630
Rate Rubber Suspension System, Variable, Metalastik Ltd., 470
Strips to Instrument Design, Application of, (Report, 559)
Springs, Corrosion Protection for, Crane Packing Ltd., (602)
Round Hard Drawn Brass Wire, (B.S.I., 861)
Spur Gear Grinder, Stuart Davis, Ltd., 10
Tooth Gear Grinding Machine, Gear Grinding Co., Ltd., 44
St. Marie Battery, 1879, 777
Stability, Automobile, Research, 774, 806, 845, 879
Stable Synchronous Detector for Audio-Frequency Measurements, (Report, 19)
Stabilisation, Price, 28
Stabilised by I.C.I., Prices, 170
Stability of Permanent Magnets, Effect of Low Temperature on the, (Report, 216)
Staff, Mobile School for Railway Maintenance, (458)
Stage Lighting at the Dusseldorf Opera House, 864
Staggering of Working Hours, 825
Stainless Linered Press Cylinder, English Steel Corporation, Ltd., 278
Steel, Hardening of Austenitic, 437
Stand Roof, Cantilevered, W. S. Atkins and Partners, 27
Suction-Clamped Test Indicator, Hommelwerke, 30
Standard, Absolute Calibration of the American Photoneutron, 69
Class "5" Locomotives with British-Caprotti Valve Gear, 708
Standardisation Activities and National Research, 740
International Organisation for, 157
Standards and Exports, 522
Calibration of High-Pressure Test, 713
Conference, Commonwealth, 909
for Gears ?, Whither British, H. E. Merritt, 547 ; Are Wanted ? (Leading Article, 533) ; H. H. Broughton, (Letter, 652) ; A. M. Gunner, (Letter, 694) ; Thos. H. O'Beirne, (Letter, 652) ; G. Weston, (Letter, 734)
in Translation, German, 675
of Light, Calibration of Secondary, 909
Summary Sheets of British, 135
Stars, Combination Spectra in Long-Period Variable, (Report, 288)
Static in the, C. E. R. Bruce, 230
Starter, Diesel Engine, Storhaven Engineering Ltd., 740
Dynamo, Lightweight Pendulum, Robert Bosch G.m.b.H., 787
Static in the Stars ? C. E. R. Bruce, 230
Statically Determinate Structures ; Theory of Prestressed Concrete Design, Henry J. Cowan, (Review, 475)
Station Accident Report, Barnes, 157
at Mersey Docks, Pumping Plant for the Wallasey Impounding, 129
Bradwell Nuclear Power, Central Electricity Authority, 98
Burlington Power, New Jersey, 382
Calder Hall Power, 537
Carrington Power, Central Electricity Authority, 124
Constructional Progress at Chapel Cross Nuclear Power, Mitchell Construction Co., 94
Finlarig Power, North of Scotland Hydro-Electric Board, 25
Fleetwood Power, Central Electricity Authority, 408
Full-Scale Testing, for Tall Structures, Stewarts and Lloyds Ltd., 821
High Marnham Power, Central Electricity Authority, 240
New Johannesburg, 134
300MW Nuclear Power, for Great Britain, 891
Nuclear Power, Proposed Site in Somerset, 797
Power, Calder Hall, 464 (Colour Suppt.), 500
Radar, on Georges Bank in the Atlantic Ocean, U.S. Air Force, 635
Rebuilding Eindhoven, 826
120MW Reheat Sets in C.E.A. Power, 112
Sea Water Evaporators at the Morro Bay Steam Power, Pacific Gas and Electric Co., 315
Tuncbilek Power, 65
Two 120MW Sets at Belvedere Power, Central Electricity Authority, (178)
Victoria, Rejection of Development Schemes, 499
Stations, Issue of Construction Permits for Large-Scale Nuclear Power, U.S. Atomic Energy Commission, 175
Statistical Tables, Lloyd's Register, 835
Statistics, Coal, National Coal Board, 391
Economic, 631
Fuel, 206
Gas Industry, Gas Council, 170
Road, 535
and Time Study, A. W. Swan, 609, 644
Stator Windings, Turbo-Generator with Water-Cooled, Metropolitan-Vickers Electrical Co., Ltd., 854
Steam Colliers Association, 1856 Premium, 835
Culture Versus American Slavery, 642
Generators, (Patents, 35, 180, 387, 459, 495, 639, 717, 933)
Generators, Small Packaged, J. Stone and Co. (Deptford), Ltd., 277
Power Plants, (Patent, 107)
Power Station, Sea Water Evaporators at the Morro Bay, Pacific Gas and Electric Co., 315
Pumping Engine, Shand, Mason and Co., 696
Reaping Machine, 477
Scoop, 736
Total Heat/Entropy Chart for, Wright-Baker, (Review, 123)
Tramway Car, 158
Trap, Inverted Bucket, Lancaster and Tonge Ltd., 487
Steamer, Stern-wheel Mail, 1880, 908
Steamers for Heysham-Belfast Service, New Turbine, G. W. Tripp, 307
Steamship "Bessemer", 337
Clyde, Lord of the Isles, 584
Steel Arc-Welded Machinery Construction in Mild, (Report, 288)
Billets, Blooms, Bars and Forgings, (B.S.I., 341)
and Coal Community, European, 598
and Coal, First Results, Towards European Integration, (Report, 746)
and Iron Industry's Productivity, 631
and Iron Prices, 898
and Iron Production, 414, 560, 747
Billets, Continuous Casting, United Steel Companies Ltd., 374
Cleavage Strength of, T. M. Noren, (904)
Corrosion of, 303
Cylinders, Internal Pressure Tests on, 620
Distribution and Stocks, 898
Dolphin, Tubular, 599
Experts Visit to Russia, (70)
for Bridges, Notch Ductile, (B.S.I., 195)
Forgings, Brittle Fracture of, 778
Frame Buildings, Design of Multi-Storey, (Report, 252)
German Iron and, 281
Hardening of Austenitic Stainless, 437
Home Demand, British, 170
Hydrogen in, 120, 779
Industry Dispute, 61 ; Report, 311
Industry, Peace in the American, 420
Investment in Western Europe, 206
Iron and, 99, 242
Jointing and Repairing Compound, Plastic, (303)
Managnese, (Review, 53)
Prices, 560
Production, World, 170
Railway Sleepers, (B.S.I., 895)
Silicon and Aluminium in Hot-Rolled, 778
Surface Blisters on, 121
Tower, Tubular, 599
Works, Durgapur Iron and, 672
Works, German, British Engineers Visit, 928
Works Locomotives, L. Irvine-Brown, (Letter, 268)
Steelmaking Since Bessemer, Sir Charles Goodeve ; 329
Steels, Alloy, 302
Chromium-Nickel Austentic, F. H. Keating, (Review, 21)
Notes on the Brittle Fracture of, Sulzer Bros., 443
Oxidation Resistant Silicon Aluminium, (Report, 559)
Steelwork, Erection of Constructional, Thomas Barron, (Review, 811)
Lectures on Welding Structural, (142)
Steinkimmen, Radio and Television Mast, 489
Stern-Wheel Mail Steamer, 1880 ; 809
Stiff-Jointed Frame on its Plastic Collapse Load, Effect of Distortion of a, M. R. Horne, (Letter, 87) ; J. W. H. King and D. E. Jenkins, (Letter, 20)
Stock Level Control, Automatic, on Blast Furnaces, I. Kjellman and K. Gronblad, 800
in the United States, High-Speed Lightweight Rolling, (Leading Article, 218)
Stocks and Distribution of Steel, 898
and Output of Coal, 747
of Copper, Government, (106)
Stop Valve, Pneumatic, Hymatic Engineering Co., Ltd., (286)
Storage Building, Prefabricated, of 100ft. Span, Taylor Woodrow (Building Exports) Ltd., 517
Calculations, Storm Water, B. A. Copas, 684
of Free Radicals at Low Temperatures, 829
Shed, Timber, Beves and Co., Ltd., 407
Storm Water Storage Calculations, B. A. Copas, 684
Straightening Machine, Roller, Bronx Engineering Co., Ltd., 708
of Bent Reinforcing Rods, 599
Press, Pitzmann and Pfeiffer K.G., 674
Strainer for Pipelines, Birfield Industries, Ltd., 412
Stranded Conductors for Overhead Electric Traction Systems, Copper and Cadmium-Copper, (B.S.I., 108)
Stratford, Diesel Maintenance Depot at, (318)
Stray Load Losses in Alternating Current, (Report, 252)
Street Lighting and Safety, W. Robinson, 759
Strength of a Tube Under Local External Pressure, G. R. Higginson, 428
of Metals and Atomic Structure, N. F. Mott, (Review, 811)
Stress Analysis, Experimental, in the U.S.A. and Canada, (Report, 746)
Creep Fracture of a Commercial Copper at 250 Deg. Cent., Combined, A. E. Johnson, J. Henderson and V. D. Mathur, 261, 299
Testing, Resonance, B. Bramall, 224 ; Bernard Bramal, (Letter, 582) ; R. P. N. Jones, (Letter, 402)
Stresses in Structures, (Report, 288)
Stretford-Worsley Section of Manchester Outer Ring Road, Motorway Scheme, 721
Strike, Clyde Shipyard, 343, 414
Strip Forming Machine, Cold, Heenan and Froude, Ltd., 48
Leaded Brass, for Use in Clocks and Watches, (B.S.I., 861)
Rolling Mill, Cold, Back-up-Driven Four-High, Stanat Manufacturing Co., Inc., 601
Strips in Use, Air, Scottish Aviation, Ltd., (318)
Stromungsvorange in kunstlich belufteten Raumen, W. Linke, (Review, 159)
Strong Room, Banker's, 370
Structural Steelwork, Lectures on Welding, (142)
Structure, Atomic, and the Strength of Metals, N. F. Mott, (Review, 811)
Structures, An Introduction to the Theory of, W. Merchant and A. Bolton, (Review, 369)
Hull, J. Turnbull, (932)
in Alnico, Study of Domain, (Report, 216)
Italian Concrete, (422)
Measurements in Concrete, V.D.I., 381
Statically Determinate ; Theory of Prestressed Concrete Design, Henry J. Cowan, (Review, 475)
Stresses in, (Report, 288)
Symposium on the Plastic Theory, J. F. Baker, 484
Tall, Full-Scale Testing Station, Stewarts and Lloyds Ltd., 821
Stud Welding, W. T. Amison, (821)
Welding Application in Reinforced Concrete Construction, 285
Students, Financial Help for Technical, (34)
International Exchange, (716)
of University College London, Old, Ifor Evans, (Letter, 402)
Studies of Blast Furnace Assessment, J. M. Ridgion and A. M. Whitehouse, 800
Operation, Recording Techniques for Rolling Mill, E. A. Chard, W. W. Hastings and D. F. Nettell, 765
Portuguese Civil Engineering, (602)
Studio, B.B.C. New Mobile, (34)
Study of Domain Structures in Alnico, (Report, 216)
of Underground Water Movements by Measurements in Drill Holes, Gordon Newstead and J. C. Jaeger, 76
Post-Graduate, Awards, 643
Time, and Statistics, A. W. Swan, 609, 644
Work, in Ordnance Factories, 488
Styrene Monomer Plant, Shell Chemical Co., Ltd., (470)
Submarine Cable, 138kV, for Vancouver Island, 589
Reactor Plant, U.S., Sustained Operation, 385
Submarines and Deep Diving, Life-saving from, 702
Subsoiler and Mole Drainer, Tractor-Mounted, Ransomes, Sims and Jefferies, Ltd., 24
Suction-Clamped Test Indicator Stand, Hommelwerke, 30
Sud-Est Aviation, 209
Suez, Aswan and, (Leading Article, 146)
Canal, 218
Canal, Clearing, 837 ; (Leading Article, 872)
Sugar Beet, Mechanical Harvesting, British Sugar Corporation, 596
Sulphur Embrittlement of Cobalt, 120
Summary Sheets of British Standards, 135
Summer School in Highway Engineering, (167)
School, Mining Industry's, 378
Sunderland, Bridge over the River Wear, 1880, 850
Super-Grid Transformer, Impulse Tests on 275kV, Bruce Peebles and Co., Ltd., 241
Super Tankers, German, 675
Superheater, Locomotive, (Leading Article, 796)
Superphosphate Plant for Salisbury, African Explosives and Chemical Industries (Rhodesia), Ltd., 63
Superstructure, Erection of Great Egg Bay Bridge, Bethlehem Steel Co., 317
Supervision, Effective, Milon Brown, (Review, 438)
Supervisors, Training for, (286), 343
Supplies, Fuel Oil, 785
Oil, 710
Supply, London's Water, W. Whalley, (Letter, 196) ; Robert Aickman, (Letter, 268)
Water, in Lanarkshire, Daer, Inauguration, 592
Reorganising Electricity, (Leading Article, 795)
Scheme, Lake Constance Water, 102
Supports, Bearings and, (Patents, 35, 143, 933)
Sur la Turbulence Spatialment Homogene, (Report, 413)
Sur un Curieux Cas D'Alternance de Tourbillons, (Report, 352)
Surface Blisters on Steel, 121
Damage and Scoring, 922
Effects in Fatigue, 121
Grinder, Hydraulic, Gaston E. Marbaix, Ltd., 45
Protection by Coating, Norton Grinding Wheel Co., Ltd., 822
Roughness Specimens, Rupert and Co., Ltd., (6)
Surfaces, Heat Exchanger, Shot Cleaning for, Keith Blackman Ltd., (678)
Surplus Refinery Gas, 147
Survey of the Cromwell Road Extension Scheme, Traffic, 39
Surveying for Civil Engineers, P. Kissam, (Review, 336)
Instruments and Methods for Surveys of Limited Extent, P. Kissam, (Review, 336)
Service, Royal Naval, 204
Surveys and Construction, Route, H. Rubey, (Review, 336)
of Limited Extent, Surveying Instruments for Methods and, P. Kissam, (Review, 336)
Survival at Sea, 169
Suspension System, Rubber, Variable Spring Rate, Metalastik Ltd., 470
Undergear, Welding Set, Quasi-Arc, Ltd., (350)
Sustained Operation of U.S. Submarine Reactor Plant, 385
Sutcliffe's Manual of Belt Conveying, 887
Swarf and Oil Separator, Continuous Automatic, Sharples Centrifuges Ltd., 515
Sweden, High-Voltage Transmission Lines in, 209
Sweden's Forest Products Industries, 281
Swedish Forest Industries, Extension Plans, 675
Forestry Research Centre, 246
Laboratory for Packaging Research, 30
Launches and Deliveries, 674
Shipyard, Expansion of, 138
Swing-Beam Press Brake, Motor-Driven, F. J. Edwards, Ltd., 8
Swing Heavy-Duty Lathe, 22in., Denham's Engineering Co., Ltd., 50
Swiss Car Imports, 281, 750
Foreign Trade, 246, 712
Hydro-Electric Power, Utilisation, 599
Mechanical Engineering Industry, 101
U.S. Atomic Agreement, 562
Water Power, 786
Switch, Snap-Action Limit, Sharp Control Gear, Ltd., 133
Switchgear, Medium-Voltage Withdrawable, George Ellison Ltd., 486
Switzerland, Constructional Work, 562
Telephone in, 419
Synchronous Detector for Audio-Frequency Measurements, Stable, (Report, 19)
Synchrotron, C.E.R.N. European Proton, 243
Particle Accelerator at Cambridge, 6000MeV, 32
Symposium on Calder Works, British Nuclear Energy Conference, 468
on the Plastic Theory of Structures, J. F. Baker, 484

T

Tables, Rectangular-Polar Conversion, E. H. Neville, (Review, 21)
Statistical, Lloyd's Register, 835
Tachometer, Electronic, Reilly Engineering Ltd., 364
Tailstock and Wheel Truing Equipment for Cylindrical Grinder, Combined Hydraulic, John Lund, Ltd., 9
Talk and Colcutt, Too Much, (Leading Article, 181)
Tall Structures, Full-Scale Testing Station, Stewarts and Lloyds Ltd., 821
Tandem Cold Mill at Velindre, Electrical Drive for Five-Stand, Davy and United Engineering Co., Ltd., 661
Tanker Line, German, 209
Tankers, German Super, 675
Oil, 862
Tanks, Glass-Reinforced Plastic Water, Microcell Ltd., 737
Tape, Protective Marking Warning, Smith and Nephew, Ltd., (350)
Tapered Roller Bearings, Heavy, Factory, British Timken Ltd., 819
Tapes, Irradiated Plastic, Tube Investments Ltd., (494)
Tar as Fuel for Gas Turbine, Coal, Crittall Manufacturing Co., Ltd., 153
Tariffs, Unequal Railway, 147
Tay Bridge, 1879, 809
Technical Advisory Service, (422)
Colleges and Industry, 463
Explosion Investigations of Industrial Dusts, E. Wehner, (Review, 159)
Films, A. A. Jones and Shipman Ltd., (566)
Illustration, Conference, (716), 797
Illustration, Courses in, (Leading Article, 182)
Information Exchange, Railway, 562
Judges in Germany, 280
Students, Financial Help for, (34)
Technique, Transonic Tunnel Testing, H. F. Vessey, 921
Techniques in Radio Engineering, Use of Wind Tunnel, J. M. Falconer, 266
Recording, for Rolling Mill Operation Studies, E. A. Chard, W. W. Hastings and D. F. Nettell, 765
Technology, A.E.C. Fellowships in Nuclear Energy, 791
A Many-Sided, (Leading Article, 426)

Part I, Materials and Processes, Modern Workshop, H. Wright Baker, (Review, 87)
Physics and, Sir George Thomson, 297
Review of High-Temperature, I. E. Campbell, (Review, 403)
"Teflon" Fibre, Fabrication of Frictional Parts from, E. I. du Pont de Nemours and Co., 32
Telecommunications, Solution of Problems, C. S. Henson, (Review, 369)
World, Sir Gordon Radley, 507
Telegraph Across the Atlantic, Electric, 720
Telephone Equipment Factory at Germiston, New, 63
in Switzerland, 419
System Picture Transmission, Bell, 829
Telescope, Bonn Radio, 749
Television, Air-to-Ground, 463
Engineering, S. W. Amos and D. C. Birkinshaw, (Review, 619)
and Radio Mast at Steinkimmen, 489
Temperature Controller, Programme, Ether Ltd., 746
Detecting Elements and Pockets, Industrial, (B.S.I., 180)
Low, Corrosion Control, British Petroleum Co., Ltd., (588)
on the Stability of Permanent Magnets, Effect of Low, (Report, 216)
Temperatures, Creep and Fracture of Metals at High, (Review, 237)
Low, Storage of Free Radicals, 828
Transformer Coolant for High, 168
Temple Bar, Re-erection of, 270
Tension Rods, Turnbarrels, and Swaged Cable-end Connections (U.N.F. Threads) for Aircraft, (B.S.I., 651)
Spring, Constant, Tensator Ltd., 630
Terminus of the Chemin de Fer du Nord, Paris, 477
Terms, Glossary of, for Concrete and Reinforced Concrete, (B.S.I., 805)
Used in Industrial High-Frequency Induction and Dielectric Heating, Glossary, (B.S.I., 544)
Tesla's Contribution to Electrical Engineering, Reginald O. Kapp, 371
Test Cabinet, Low-Refrigeration, Lightfoot Refrigeration Co., Ltd., (286)
for Detecting Real Changes in Frequency, Stafford Beer, 798
House for Grinding, Screening and Filtering Equipment, International Combustion, Ltd., 166
Indicator Stand, Suction-Clamped, Hommelwerke, 30
Laboratory, Oil, 56 ; P. W. Harrison, (Letter, 122)
of Monorail Line in Texas, 421
Set, Semi-Conductor Resistivity, Baird Associated Inc., 317
Standards, Calibration of High-Pressure, 713
Tester, Involute and Helix, for Large Gears, W. Ferd Klingelnberg Sohne, 561
Testing, Air Turbine, General Electric Co., Ltd., (350)
Aircraft Brake, Dunlop Rubber Company, 520
Flywheel Magneto, Crypton Equipment Ltd., (458)
Machine, 1881, 886
Machine, 500-Ton Universal Vertical, W. and T. Avery, Ltd., 161
Micro-Indentation Hardness, B. W. Mott, (Review, 20)
and Measurement, Engineering Inspection, H. C. Town, (Review, 511)
Resonance Stress, B. Bramall, 224 ; R. P. N. Jones, (Letter, 402) ; Bernard Bramall, (Letter, 582)
Station, Full-Scale, for Tall Structures, Stewarts and Lloyds Ltd., 821
Technique, Transonic Tunnel, H. F. Vessey, 921
Transformers, Thermometer for, (Report, 288)
Vulcanised Rubber, Methods for, (B.S.I.'s, 36, 108, 921)
Water Used in Industry, Methods of, (B.S.I., 144)
Tests on the Efficiency of a Twin-Shaft Paddle Mixer, Road Note No. 21, (Report, 660)
Internal Pressure, on Steel Cylinders, 620
Quality, for Household Goods, 381
on Transformers, Iron-Loss, (Report, 216)
on 275kV Super-Grid Transformer, Impulse, Bruce Peebles and Co., Ltd., 241
Texas, Test of Monorail Line, 421
Textile Machinery Index, (Review, 667)
Their Lordships Discuss Education, (Leading Article, 758)
Theory of Hydrodynamic Lubrication in Parallel Sliding, H. Blok, (Letter, 304) ; W. Lewicki, (Letter, 336)
of Machines, T. Bevan, (Review, 550)
and Practice of Lubrication for Engineers, D. D. Fuller, (Review, 402)
of Prestressed Concrete Design, Statically Determinate Structures, Henry J. Cowan, (Review, 475)
of Restrained Corrugated Diaphragms, C. B. Flindt, 193
of Structures, An Introduction to, W. Merchant and A. Bolton, (Review, 369)
Therapy, Deep, in Great Britain, Radioactive "Waste" for, 607
Unit, Radioactive Cobalt, 42
Thermometer for Testing Transformers, (Report, 288)
Thin Lenses, Aberrations of, H. H. Emsley, (Review, 735)
"This Really Disgusting Process", (Leading Article, 390)
Thread Grinder, Worm and, Stedall Machine Tool Co., Ltd., 46
Thresher and Chaff Cutter, 736
Thrust Bearings, Electrical Load Measuring System for Kingsbury, Baldwin-Lima-Hamilton Corporation, 715
Reversers, Rolls-Royce, Ltd., 333
Timber Development Association, Timber Storage Shed, 407
Paper from Bark-Stained, Swedish Cellulose Company, 381
Research Centre, Timber Development Association, Ltd., 39
Storage Shed, Beves and Co., Ltd., 407
Time Characteristics of the Slabbing Mill, H. G. Jones, D. T. Steer and P. D. Dickerson, 765
Rates of Wages and Hours of Labour, 28
Study and Statistics, A. W. Swan, 609, 644
Timer, Process, Venner Ltd., (792)
Times, Measurement of Gas Transit, in a Blast Furnace, 800
Timmelsjoch Road, The, 281
Tin Conference, German, 863
Tinplate Works, Velindre, Steel Company of Wales, Ltd., 28
Tipped Tool Sharpening Machine, Tungsten Carbide, George Cohen, Sons and Co., Ltd., 10
Tipper, Four-wheel Drive, Klockner-Humboldt-Deutz A.G., 430
Tipping Concrete Blocks, 88
Goods Wagon, Two-Way Lifting and, Siegener Eisenbedarf A.G. (S.E.A.G.), 30
Titanium, Electrolytic, 779
Oxide from Beach Sands, 776
Wrought, 621
Toll Roads ? Trouble for, 175
Tonnage Oxygen Plant Opened at Margam, British Oxygen Co., Ltd., 183
Too Much Talk and Colcutt, (Leading Article, 181)
Tool and Die Handling Equipment, Heavy, Matling Ltd., and Talbot-Ponsonby and Co., Ltd., (566)
Exhibition, Gauge and, (172)
Exhibition, International Machine, 7, 43
Grinding Machine, Carbide, Stedall Machine Tool Co., Ltd., 46
Grinding Machine, Circular Form, A. A. Jones and Shipman Ltd., 861
History, Bibliography of the Art of Turning and Lathe and Machine, S. G. Abell, J. Leggat and W. G. Ogden, (Review, 269)
Lubrication, Machine, Wakefield-Dick Industrial Oils Ltd., (818)
Performance with Radioactive Isotopes, Measurement of Cutting, Alexander Duckham and Co., Ltd., 127
Sharpening Machine, Tungsten Carbide Tipped, George Cohen, Sons and Co., Ltd., 10
Toolroom Boring Machine, Horizontal, H. W. Kearns and Co., Ltd., 7
Slotting Machine, Precision, Butler Machine Tool Co., Ltd., 11
Tools and Appliances, Workshop, (Patents, 387, 423
Chuck for Screwed Shank, B.S.A. Tools Ltd., 709
Drifting, Trend Industrial Equipment Ltd., (541)
Machine, (Patents, 72, 495, 793)
Manual of Screw Thread, Firth Brown Tools Ltd., (858)
Portable Power Point for Electric, Wolf Electric Tools, Ltd., (318)
Reference Manual of German Machine, (Report, 252)
Tooth, Cycloid, Let's Forget, W. A. Tuplin, 836
Gear Grinding Machine, Spur, Gear Grinding Co., Ltd., 44
Gearing and Research, S. A. Couling, 915
Torque Converter, Motor Grader Equipped with, Le Tourneau-Westinghouse Company, 931
Wrenches, Instrument for the Calibration of, Baldwin-Lima-Hamilton Corporation, 677
Torsional Vibration Problems : Vol. I : Frequency Calculations, Practical Solution of, W. Ker Wilson, (Review, 52)
Total Heat/Entropy Chart for Steam, Wright-Baker, (Review, 123)
Tour in the Provinces, 323
Tourbillons, Sur un Curieux Cas D'Alternance de, (Report, 352)
Towards European Integration : First Results for Coal and Steel, (Report, 746)
Tower Bridge, 622
Tubular Steel, 599
Town Planning and Housing Congress, Twenty-Third International, 65
Towns, Large, Traffic Arteries in, (Leading Article, 425)
Track-Layer, Twin-Engine Two-Stroke, John Blackwood Hodge and Co., Ltd., 628
Lifting and Scarifying Equipment, 487
Tracks, Reinforced Rubber Tyre, Massey-Harris-Ferguson, Ltd., 23
Traction, Diesel, 63
Rail, Diesel Engines for, (Leading Article, 719)
Systems, Copper and Cadmium-Copper Stranded Conductors for Overhead Electric, (B.S.I., 108)
Trolley and Contact Wire for Electric, (B.S.I., 108)
Tractor, Constant Drive on, David Brown Companies, 23
mounted "Agrotiller", Frank Bonser and Co., Ltd., 25
mounted Combine-harvester, Massey-Harris-Ferguson Ltd., 815
mounted Spinner Broadcaster, Massey-Harris-Ferguson, Ltd., 23
mounted Subsoiler and Mole Drainer, Ransomes, Sims and Jefferies, Ltd., 24
mounted Tool Attachment, Mathew Brothers Ltd., 737
"900" Diesel-engined, David Brown Industries Ltd., 782
Refinements, Fordson "Major", Ford Motor Co., Ltd., 782
37 B.H.P., Agricultural, Massey-Harris-Ferguson Ltd., 479
Tractors, 10 and 12-Ton, Commer Cars Ltd., and Karrier Motors Ltd., 430
Trade Agreement, United Kingdom-Australian, 710
Area, European Free, 560 ; (Leading Article, 641), 672
Area, European Free, and British Industry, 663
Effluents, The Law Dealing with, 672
in First Half of 1956, Swiss Foreign, 246
Morality, 75
Overseas, 242, 311, 414, 451, 560, 710, 785, 862
Practices Act, Restrictive, 206, 378
Profits and, Guest, Keen and Nettlefolds, Ltd., 28
Swiss Foreign, 712
Unions, 747
Unions, Motor Industry and, (Leading Article, 217)
United Kingdom's Export, 206
Wastes, Treatment, (602)
Trades Union Congress, 378
Trading Agreements, Restrictive, 631, 785
Figures for June, United Kingdom, 135
Traditions of Craftsmanship, 391
Traffic Arteries in Large Towns, (Leading Article, 425)
Control by Radar, 900
European Road, 280
Road, and Research, Sir Charles Goodeve, 835
Survey of the Cromwell Road Extension Scheme, 39
Train Graphs, Automatic, L. M. Ericsson, 674
Lightweight Electric Passenger, 280
Training Centre, Apprentice, Birlec Ltd., (458) and Education, Automation, Conference, (754)
Equipment, Diesel Engine Mobile, F. Perkins Ltd., (808)
Establishments, Transport Commission's, (106)
Machine Shop for Apprentice, General Electric Co., Ltd., (386)
Pre-Apprentice, 721
School for Apprentices, British Oxygen Engineering Ltd., (792)
and Selection of Foremen in Europe, Sven Grabe and Paul Silberer, (Review, 924)
of Supervisors, 286, 343
Trains for Mersey Lines, Lightweight, (318)
Tramway Car, Steam, 158
Transfer Feed Press Line for Automotive Wheel Production, Automatic, Clearing Machine Corporation, 282
Heat, to a Fluid Flowing in a Tube within a Radiating Enclosure, C. D. Weir, (Letter, 780)
Machine, James Archdale and Co., Ltd., 47
between Palladium and Silver Contacts at Low Inductances, Metal, J. Riddlestone, (Review, 121)
Panels, Heat, Imperial Chemical Industries, Ltd., 521
and Special Purpose Machines, Unit Head for use on, Brooke Tool Manufacturing Co., Ltd., 7
Transformer Coolant for High Temperatures, 168
Impulse Tests on 275kV Super-Grid, Bruce Peebles and Co., Ltd., 241
and Rectifier Factory Expansion, Hackbridge and Hewittic Electric Co., Ltd., 703
Windings, Paper-Covered Rectangular Copper Conductors, (B.S.I., 651)
Transformers, Drying of High-Voltage, (Report, 288)
Iron-Loss Tests on, (Report, 216)
Thermometer for Testing, (Report, 288)
Transient Flow in a Pipe with Two Gases, One-Dimensional, R. S. Benson, 687
Transit Times, Gas, in a Blast Furnace, Measurement, T. W. Johnson, 800
Translation, German Standards, 675
Translucent Flexible Doors, Parker, Winder and Achurch Ltd., (740)
Transmission, Borg-Warner, 552
Factory, Automobile, 133
Hand Brake, Lockheed, Automotive Products Co., Ltd., 470
"Hydromedia", Zahnradfabrik Friedrichshafen, 470
Lines, Aluminium for, Aluminium Union Ltd., (678)
Lines in Sweden, High-Voltage, 209
of Pictures by the Bell Telephone System, 829
Power, (Patents, 107, 143, 215, 319, 367)
Transonic Tunnel Testing Technique, H. F. Vessey, 921
Transport, Britain's Neglect of, (Leading Article, 2)
Commission's Design Panel, 597
Road, (Patents, 423, 755, 793)
Treasures, Exhibition, (830)
Turbine, Sir W. G. Armstrong Whitworth Aircraft Ltd., (494)
Transportation Centre Public Day, (286)
Transporter Wagon, Automobile, 64
Transporters and Conveyors, (Patent, 793)
Trap, Inverted Bucket Steam, Lancaster and Tonge, Ltd., 487
Travelling Scholarship, Sir Alfred Herbert, 535
Treatment of Trade Wastes, (602)
Trench Blasting Holes, Twin-Drill Rigs, Climax Rock Drill and Engineering Works Ltd., (702)
Digger, William Reynolds and Sons (Bedford) Ltd., 815
Trends in Capital Investment, 206
Trevithick Engine of 1811, 736
Trial Trips, Launches and, 36, 72, 144, 180, 216, 320, 352, 496, 532, 568, 604, 716, 870, 906, 934
Trials, Producer Gas, 238
of Turbo-Charged Two-Stroke Marine Diesel Engine, Gebr. Sulzer A.G., 245
Triode for Industrial R.F. Generators, Mullard Ltd., (754)
Valves, Industrial, General Electric Co., Ltd., (754)
Triple-Draw, High-Speed Drawbench, Automatic, Head Wrightson Machine Co., Ltd., 375
Trips, Launches and Trial, 36, 72, 144, 180, 216, 320, 352, 496, 532, 568, 604, 716, 870, 906, 934
Trolley and Contact Wire for Electric Traction, (B.S.I., 108)
Trooping, Air, Blackburn and General Aircraft, Ltd., 333
Troopship "Nevasa", British Steam Navigation Co., Ltd., 162
Tropospheric Scatter, British Research into Radio Propagation by, Marconi's Wireless Telegraph Co., Ltd., 595
Trouble for Toll Roads ? 175
Truck, "Buffalo", Leyland Motors, Ltd., 392
8 cubic yard Dump, Scammell Lorries Ltd., 737
Mounted Crane, Hydraulically-Operated, Chamberlain Industries, Ltd., 412
One-ton, Frank Bonser and Co., Ltd., 817
7-Ton, Austin Motors Ltd., 430
"Volvo" Six-wheeler, A. B. Volvo, 430
Trucks for Concrete, Agitator/Mixer, Stothert and Pitt Ltd., 737
True Motion Radar, Decca Radar Ltd., 707
Truing Equipment for Cylindrical Grinder, Combined Hydraulic Tailstock and Wheel, John Lund, Ltd., 9
Tube Fittings, Moulded Polythene, for Plumbing Systems, Imperial Chemical Industries Ltd., 671
and Pipe Couplings, (Patents, 603, 717)
within a Radiating Enclosure, Heat Transfer to a Fluid Flowing in, C. D. Weir, (Letter, 780)
Strength of, Under Local External Pressure, G. R. Higginson, 428
Tubes, Conduit, Small Bending Machine for, General Electric Co., Ltd., (792)
and Hoses, Flexible, Quarterly Magazine, Compoflex Co., Ltd., (699)
Tubing, Rubber, and Bungs for Laboratory Use, (B.S.I., 805)
Tubular Steel Dolphin, 599
Steel Tower, 599
Tug "Sabre", Manchester Ship Canal, P. K. Harris (Shipbuilders), Ltd., 342
Twin Screw, "Takoradi", Philip and Son, Ltd., 484
Tuncbilek Power Station, 65
Tungsten Carbide Tipped Tool Sharpening Machine, George Cohen, Sons and Co., Ltd., 10
Tuning, Sound System for Colston Hall Organ, General Electric Co., Ltd., 241
Tunnel Testing Technique, Transonic, H. F. Vessey, 921

TUNNELS

Mont Cenis Tunnel, 22
Rock Tunnelling on the Ume River, 787
Use of Wind Tunnel Techniques in Radio Engineering, J. M. Falconer, 266
Whymper and the Mont Cenis Tunnel, T. L. Watkins, (Letter, 86)
Turbine Blades, Large-Capacity Projector for Inspecting, Optical Measuring Tools Ltd., 746
Castings, Machining of, 208
Coal Tar as Fuel for Gas, Crittall Manufacturing Co., Ltd., 153
Developments in Aeronautics, Gas, A. W. Morley, 16
Diaphragm Blades, Conditions of Failure in some, K. H. Khalil, 78
Engines, Gas, D. Napier and Son, Ltd., 333
Gas, Pumping Set, (546)
German Industrial Gas, Gutehoffnungshutte A.G., 65
Nozzle Blade, Effusion Cooled, (Report, 897)
Plant, Air, Coal-Fired Closed-Cycle, Escher Wyss Ltd., 927
and Pumping Houses, 235
Ram Air, Plessey Co., Ltd., 365
at Sea, Gas, (Leading Article, 534)
Shaft Displacement, Pneumatic Measurement, C. A. Scoles, 763
Steamers for Heysham-Belfast Service, New, G. W. Tripp, 307
Testing, Air, General Electric Co., Ltd., (350)
Transport, Sir W. G. Armstrong Whitworth Aircraft Ltd., (494)
Turbines, Aircraft Gas, C. W. Smith, (Review, 53)
at Altitude, (350)
for Australia, Gas, 267
Gas, (Patents, 35, 72, 107, 287)
Turbo-Charged Two-Stroke Marine Diesel Engine, Trials of, Gebr. Sulzer A.G., 245
Two-Stroke Marine Diesel Engines, Trials of, Correction, (678)
Turbo-Charger, Automotive, Simms Motor Units Ltd., 858
Turbo-Chargers, Self-Contained, Brush Electrical Engineering Co., Ltd., 57
Turbo-Generator with Water-Cooled Stator Windings, Metropolitan-Vickers Electrical Co., Ltd., 854
Turbo-Machinery, Principles of, D. G. Shepherd, (Review, 159)
Turbo-Prop, Single-Spool, (90)
Turbulence Spatialment Homogene, Sur la, (Report, 413)
Turnbarrels, Tension Rods and Swaged Cable-end Connections (U.N.F. Threads) for Aircraft, (B.S.I., 651)
Turning and Lathe and Machine Tool History, Bibliography of the Art of, S. G. Abell, J. Leggat and W. G. Ogden, (Review, 269)
Mill, Vertical Boring and, Selson Machine Tool Co., Ltd., 10
Turnover, Cost of Labour, 672
Turret Clock for Bombay University, 477
Clock, Improved, 337
Milling Machine, Woodhouse and Mitchell, Ltd., 48
Twentieth-Century Man Against Antarctica, Sir Raymond Priestley, 296
Twin-Drill Rigs for Trench Blasting Holes, Climax Rock Drill and Engineering Works, (702)
Engine Two-Stroke Track-Layer, John Blackwood Hodge and Co., Ltd., 628
Screw Liner "Camito", Alexander Stephen and Sons, Ltd., 860
Screw Tug "Takoradi", Philip and Son, Ltd., 484
Tyne, Opening of Dry Dock on the River, Brigham and Cowan, Ltd., 413
Shipbuilding on the, 255
Tyre Drier, Grantham Electrical Engineering Co., Ltd., 671
Tracks, Reinforced Rubber, Massey-Harris-Ferguson, Ltd., 23
Tyres, Rayon Cord, Courtaulds Ltd., (868)

U

Ultrasonic Cleansing Plant, Kerry Group, 49
Ume River, Rock Tunnelling, 787
Underfloor-engined Lorries, "Claymore", Albion Motors Ltd., 430
Undergear, Welding Set Suspension, Quasi-Arc, Ltd., (350)

Underground Gasification of Coal, 873
Urban Parking, 835
Water Movements by Measurements in Drill Holes, Study of, Gordon Newstead and J. C. Jaeger, 76
Unemployment and Employment, 61, 242, 378, 560, 710, 862
Unequal Railway Tariffs, 147
Unions, Motor Industry and Trade, (Leading Article, 217)
Trade, 747
Unit Head for use on Transfer and Special Purpose Machines, Brooke Tool Manufacturing Co., Ltd., 7
United Kingdom-Australian Trade Agreement, 710
Trading Figures for June, 135
Export Trade, 206
United States Atomic Energy Commission, Work of, 455
and Canada, Experimental Stress Analysis, (Report, 746)
High-Speed Lightweight Rolling Stock in the, (Leading Article, 218)
Navy Shipbuilding Programme, 676
Parking in, H. J. H. Starks, 356, 396
Warships—Environmental Aspects of Improved Habitability, 745
Universal Automatic Press, Stuart Davis, Ltd., 10
Exhibition, Brussels, 1958, 750
Vertical Testing Machine, 500-Ton, W. and T. Avery, Ltd., 161
Universities and the British Transport Commission, 898
University of Birmingham, Commerce Graduates and Cost Accountancy, (142)
Building Projects, 759
College London, Old Students of, Ifor Evans, (Letter, 402)
Scholarships, National Coal Board, (868)
Some Uses of a, R. P. N. Jones, 152
Updraught Carburetters, Villiers Engineering Co., Ltd., 596
Urban Motor Roads, 440, 478
Motorways, Conference on, 394
Parking, Underground, 835
Populations in Germany, Growth, 712
Use of Methane from Coalfields, Drainage and, (Review, 269)
of Natural Gas in Scotland, 835
of Wind Tunnel Techniques in Radio Engineering, J. M. Falconer, 266
Used in Industry, Methods of Testing Water, (B.S.I., 144)
Uses of a University, Some, R. P. N. Jones, 152
Utilisation of Swiss Hydro-Electric Power, 599
Utrecht, International Autumn Fair, 454
Royal Netherlands Industries Fair, 65

V

Vaal Hartz Weir Level to be Raised, 673
Vacuum Gauge, Pulsometer Engineering Co., Ltd., 205
Valuation, Copper Residue, Metallic Extractors (Non-Ferrous), Ltd., (59)
Valve Gear, Standard Class "5" Locomotives with British-Caprotti, 708
Pneumatic Stop, Hymatic Engineering Co., Ltd., (286)
Valves for General Purposes, Copper Alloy Check, (B.S.I., 36)
for General Purposes, Copper Alloy Gate, (B.S.I., 36)
Industrial Triode, General Electric Co., Ltd., (754)
(Patents, 171, 179, 603)
"Valvetrace" Milling Machine, Buck and Hickman, Ltd., 8
Van, 25/30 cwt., Vauxhall Motors Ltd., 430
Vancouver Island, 138kV Submarine Cable, 589
Vans, Pick-up and Delivery, Volkswagen Werke, 430
Variable, Etude de la Lubrification sous Pression Rapidement, (Report, 413)
Spring Rate Rubber Suspension System, Metalastik Ltd., 470
Stars, Combination Spectra in Long-Period, (Report, 288)
Varnish and Lacquer on Photo-Lithographic Rollers, Infra-Red Curing, Metropolitan-Vickers Electrical Co., Ltd., 670
Vehicle, Bulk Oil Dispensing, Shell Mex and B.P. Ltd., 699
Industry, Redundancy in the Motor, 99
Plant, German Commercial, Volkswagen, 675
Production, Motor, 135
Vehicles, Military, Demonstration, 518
Oil-Engined, 50
Refrigerated, British Aluminium Co., Ltd., (442)
Velindre Tinplate Works, Steel Company of Wales, Ltd., 28
Veneer Peeling Lathe, Ward-Leonard Control of, Tyne Timber and Veneers, Ltd., 96
Ventilating and Air Conditioning Development, Thermotank Ltd., 516
Verein Deutscher Ingenieure, Annual Report for 1955, 750 ; Measurements in Concrete Structures, 381
Vessel, Merchant, Nuclear Propulsion, Babcock and Wilcox Co., 791
Vertical Boring and Turning Mill, Selson Machine Tool Co., Ltd., 10
Fine Boring Machine, Dowding and Doll, Ltd., 44
Hardening Equipment, High-Frequency, Birlec, Ltd., 45
Milling Machine, James Archdale and Co., Ltd., 47
Spindle Chucking Lathe, Charles Churchill and Co., Ltd., 43
Testing Machine, 500-Ton Universal, W. and T. Avery, Ltd., 161
Vibrated Concrete, 323
Vibrating Beams, Myklestad's Method for Non-Uniform, R. E. D. Bishop, 838, 874
Vibration of Precision Ball Bearings, Machine for Determining, H. L. Wunsch, 881
Problems : Vol. I : Frequency Calculations, Practical Solution of Torsional, W. Ker Wilson, (Review, 52)
Vibrations, Dynamique Generale des, Y. Rocard, (Review, 269)
Examples in Mechanical, J. Hannah and R. C. Stephens, (Review, 123)
Mechanical, J. P. Den Hartog, (Review, 781)
Vice, Air-operated, Hardon Precision Engineering Co., Ltd., (630)
Vickers-Supermarine type 554 Aeroplane, 363
Victoria Station, Rejection of Development Schemes, 499
Virginia, Industrial Nuclear Facilities Works in, Babcock and Wilcox Co., 139, 176
"Viscount Major" Flies, (214)
Visit of British Engineers to Russian Hydro-Electric Schemes, 535
to German Steel Works, British Engineers, 928
to Russia, Steel Experts, (70)
Volta River Project, 112 ; C. L. Wiggins, (Letter, 402)
Voltage Glass Insulator Laboratory, High, Pilkington Brothers Ltd., 658
Vulcanised Rubber, Methods of Testing, (B.S.I., 36, 108, 921)

W

Wage Claims, 631
Rates, Changes in, 28, 825
Restraint, 451
Wages and Hours, Engineering, 28
and Hours of Labour, Time Rates of, 28
and Labour Relations, 747
and Prices, 414
and Productivity, 488
Engineering, 279, 414, 825
Railwaymen's, 61, 597, 862
Wagon, Automobile Transporter, 64
Two-Way Lifting and Tipping Goods, Siegener Eisenbedarf A.G. (S.E.A.G.), 30
Wales, South, Coal Preparation Plant, 909
Walking Dragline, 12 Cubic Yard, Ransomes and Rapier, Ltd., 274
Wallasey Impounding Station at Mersey Docks, Pumping Plant for the, 129
Wanted ?, Are Gear Standards, (Leading Article, 533)
Ward-Leonard Control of Veneer Peeling Lathe, Tyne Timber and Veneers, Ltd., 96
Warning Equipment and Automatic Control for Air Compressors, Holman Brothers, Ltd., 824
Tape, Protective Marking, Smith and Nephew, Ltd., (350)
Warora Colliery Central India, 584
Warship "Duilio", Italian, 654
"Peter the Great", Russian, 1881, 925
Weapon-Mounted in British, 198
Warships, U.S.,—Environmental Aspects of Improved Habitability, 745
Washers, Wood Pulp Board, Tresises Drip Mat Co., (792)
Washington, Construction of the Priest Rapids Dam, 565
"Waste", Radioactive, for Deep Therapy in Great Britain, 607
Wastes and Sewage, Water-borne, Disposal, Karl Imhoff, W. J. Muller and D. K. B. Thistlethwayte, (Review, 735)
Treatment of Trade, (602)
Watch and Clock Escapements, W. J. Gazeley, (Review, 368)
Watches and Clocks, Leaded Brass Strip for Use in, (B.S.I., 861)
Water-borne Wastes and Sewage, Disposal, Karl Imhoff, W. J. Muller and D. K. B. Thistlethwayte, (Review, 735)
Cooled Stator Windings, Turbo-Generator, Metropolitan-Vickers Electrical Co., Ltd., 854
Speed Record Attempt, (386)
Storage Calculations, Storm, B. A. Copas, 684

WATER SUPPLY

Africa, New Water Act, 673
Conserving Water Resources, G. M. Binnie, 571
Daer Water Supply in Lanarkshire, Inauguration, 592
Emergency Procedures for Water Authorities, (70)
Finlarig Power Station, North of Scotland Hydro-Electric Board, 25
Foxcote Reservoir, Binnie, Deacon and Gourley, (Letter, 695)
Friar's Wash Water Scheme, (530)
Gwelo Dam, New, 172
Homogeneous Earth-Fill Dam of the Foxcote Reservoir, 618
Inauguration of Glasgow's West Main Waterworks, 427
Lake Constance Water Supply Scheme, 102
London's Water Supply, W. Whalley, (Letter, 196) ; Robert Aickman, (Letter, 268)
Methods of Sampling Water Used in Industry, (B.S.I., 776)
Pitsford Water Supply Scheme, 646
Provision of Dams in the Rhodesias, 172
Que Que Water Scheme, 172
Regrouping Water Undertakings, 422, 463
Report on the Multiple-Purpose Plan for Permanently Controlling the Yellow River, Teng Tse-Hui, (Review, 87)
Study of Underground Water Movements by Measurements in Drill Holes, Gordon Newstead and J. C. Jaeger, 76
Swiss Water Power, 786
Water Development and Irrigation in Northern Rhodesia, (422)
Well at Prospect Park, 88
Water Tanks, Glass-Reinforced, Microcell Ltd., 737
Towers, Crystal Palace, 3
Watt and Murdock, In Commemoration of Boulton, (Leading Article, 390)
Wave Diagrams for Nonsteady Flow in Ducts, George Rudinger, (Review, 20)
Waves, Forward Scatter of Wireless, 210
Weapon-Mounted in British Warship, 198
Weaving Shed, Cooling System for, Thomas Longworth (Sales), Ltd., 310
Weighing Machine at the G.P.O., 427
Weir to be Raised, Level of Vaal Hartz, 673

WELDING

Arc-Welded Machinery Construction in Mild Steel, (Report, 288)
Argon Arc Welding of Aluminium, (Report, 252)
Automatic "Argonarc" Welding Equipment, British Oxygen Co., Ltd., 267
"Argonaut" Welding Head, British Oxygen, Ltd., 59
Combined Continuous Backing Bar and Clamp for Cylindrical Welding, Yates Plant, Ltd., 26
Development Policy in Long Welded Rails, 134
Heavy Welding Manipulator, Metropolitan-Vickers Electrical Co., Ltd., 897
Lectures on Welding Structural Steelwork, (142)
Metal-Rectifier Welding Set, Quasi-Arc, Ltd., 238
Patent, 905
Rectifier Arc-Welding Set, Metropolitan-Vickers Electrical Co., Ltd., 310
Science and Practice of Welding, A. C. Davis, (Review, 305)
Stud Welding Application in Reinforced Concrete Construction, 285
Welding at Calder Hall, P. D. Tatton-Brown, 924
of High-Nickel Alloys, Henry Wiggin and Co., Ltd., (34)
Positioner, Small, Courtburn Positioners Ltd., 596
Set Suspension Undergear, Quasi-Arc, Ltd., (350)
Stud, W. T. Amison, (821)
Well at Prospect Park, 88
Drilling Package Units, Oil, Davey, Paxman and Co., Ltd., 706
Welsh Grit-Stone Quarry, Electrification of a, Anglo-American Asphalt Co., Ltd., 95
West German Locomotives, 65
German Shipbuilding, 102
Western Engineers and Russia, (Leading Article, 681)
Europe, Steel Investment in, 206
Westminster Bridge, New, 112, 427
Wet Belt Grinder, Taylor Tools and Supplies Ltd., (638)
Processes for Combating Fire-Damp and Coal Dust Explosions, H. Shultze-Rhonhof, (Review, 159)
Whales Head, Manufacture, David Budworth Ltd., 896
Wheel Lathe, Duplex, 337
Production, Automatic Transfer Feed Press Line for Automotive, Clearing Machine Corporation, 282
Truing Equipment for Cylindrical Grinder, Combined Hydraulic Tailstock and, John Lund, Ltd., 9
Whither British Standards for Gears ?, H. E. Merritt, 547
Whymper and the Mont Cenis Tunnel, T. L. Watkins, (Letter, 86)
Wide-Strip Rolling and Sheet Finishing Equipment, H. H. Ascough, 765
Wind Power Plant, (Patent, 639)
Tunnel Techniques in Radio Engineering, Use of, J. M. Falconer, 266
Winding Engine, Portable Mine, 119
Windings, Water-Cooled Stator, Turbo-Generator, Metropolitan-Vickers Electrical Co., Ltd., 854
Windlass, Ploughing, 306
Winfrith Heath Atomic Research Project, (932)
Wing Sections, The Design of, T. Nonweiler, (Review, 550)
Wingerworth, Carbonisation and Chemical Plant, 623, 655
Winter Garden, Royal Aquarium and, 404
Wire-Armoured Paper-Insulated Cables for Use in Mines, (B.S.I., 544)
for Electric Traction, Trolley and Contact, (B.S.I., 108)
for Springs, Round Hard Drawn Brass, (B.S.I., 861)
Race Ball and Roller Bearings, Eisenwerk Rothe Erde G.m.b.H., 525
Rope Works, William Cooke and Co., Ltd., 309

WIRELESS

Air-to-Ground Television, 463
Bonn Radio Telescope, 749
British Research into Radio Propagation by Tropospheric Scatter, Marconi's Wireless Telegraph Co., Ltd., 595
Fifty Years of German Long-Distance Radio, 712
Long Range Radar Installation at New York International Airport, General Electric Co., 420
Radio-Telephony in Railway Marshalling, 634
and Television Mast at Steinkimmen, 489
Television Engineering, S. W. Amos and D. C. Birkinshaw, (Review, 619)
True Motion Radar, Decca Radar Ltd., 707
U.S. Air Force Radar Station on Georges Bank in the Atlantic Ocean, 635
Wireless Waves, Forward Scatter of, 210
Wood, Efficiency of Adhesives, (Report, 897)
Engravings, 909
Pulp Board Washers, Tresises Drip Mat Co., (792)
Woodworking Machinery, (Patent, 251)
Work by British Firms, Overseas Constructional, 451
Constructional, in Switzerland, 502
of B.I.S.R.A., (Leading Article, 322)
of the U.S. Atomic Energy Commission, 526, 455, 491
Study in Ordnance Factories, 488
Worker, Education of the Young, (142)
Workers, Readaption and Re-employment, (Report, 926)
Working Costs and Performance of Heavy-Oil Engines, (Leading Article, 908)
Hours, Staggering, 825
Works, Bus Repair and Overhaul, Aldenham, 626
Diesel Engine Manufacture at a British Locomotive, North British Locomotive Co., Ltd., 411
Durgapur Iron and Steel, 672
Exhibition, Public, 737
German Steel, British Engineers Visit, 928
in Virginia, Industrial Nuclear Facilities, Babcock and Wilcox Co., 139, 176
Locomotives, Steel, L. Irvine-Brown, (Letter, 268)
Maritzburg Sewage Disposal, 673
Pickling Plant, Robert Dempster and Sons Ltd., 660
Shipbuilding, Barrow-in-Furness, 809
Slabbing Mill Drive, Abbey, Steel Company of Wales, 98
Velindre Tinplate, Steel Company of Wales, Ltd., 28
Wire Rope, William Cooke and Co., Ltd., 309
Workshop Technology : Part I, Materials and Processes, Modern, H. Wright Baker, (Review, 87)
Tools and Appliances, Patents, 387, 423
Workshops, Koedoespoort Mechanical, 134
World, Aircraft Engines of the, P. H. Wilkinson, (Review, 268)
Power, (Leading Article, 1)
Power Conference, Fifth, 13
Steel Production, 170
Telecommunications, Sir Gordon Radley, 507
Worm and Thread Grinder, Stedall Machine Tool Co., Ltd., 46
Wreck Returns, Lloyd's, 178, 530, 792
Wrenches, Torque, Instrument for the Calibration of, Baldwin-Lima-Hamilton Corporation, 677
Wrought Non-Ferrous Metals and Alloys, Control of Quality in the Production of, (Review, 53)
Titanium, 621

Y

Yacht, Livadia, 1880, 850
Ybbs-Persenbeug Hydro-Electric Scheme on the Danube, 100
Year, U.S. Earth Satellite Programme for the International Geophysical, 247
Years, Bridging the, C. M. Norrie, (Review, 811)
Years' Omnibus Operation, One Hundred, London General Omnibus Co., 89
Yellow River, Report on the Multiple-Purpose Plan for Permanently Controlling the, Teng Tse-Hui, (Review, 87)
Yield, Criteria, D. G. Sopwith and J. L. M. Morrison, (Letter, 810)
Yorkshire-London Motorway, Modified Line, (745)
Young Worker, Education of the, (142)

Z

Zambesi River, Kariba Hydro-Electric Scheme on the, 155
Zinc-Aluminium-Copper Bearing Alloy, 561